



Cisco Connected Mobile Experiences REST API Guide, Release 10.5

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Americas Headquarters

Cisco Systems, Inc.
170 West Tasman Drive
San Jose, CA 95134-1706
USA
<http://www.cisco.com>
Tel: 408 526-4000
800 553-NETS (6387)
Fax: 408 527-0883

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Preface

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Audience

This document is for network administrators who configure Cisco Connected Mobile Experiences (Cisco CMX) services.

Conventions

This document uses the following conventions:

Table 1: Conventions

| Convention | Indication |
|---------------------------|--|
| bold font | Commands and keywords and user-entered text appear in bold font . |
| <i>italic font</i> | Document titles, new or emphasized terms, and arguments for which you supply values are in <i>italic font</i> . |
| [] | Elements in square brackets are optional. |
| {x y z } | Required alternative keywords are grouped in braces and separated by vertical bars. |
| [x y z] | Optional alternative keywords are grouped in brackets and separated by vertical bars. |
| string | A nonquoted set of characters. Do not use quotation marks around the string. Otherwise, the string will include the quotation marks. |
| <code>courier font</code> | Terminal sessions and information the system displays appear in <code>courier font</code> . |
| <> | Nonprinting characters such as passwords are in angle brackets. |
| [] | Default responses to system prompts are in square brackets. |
| !, # | An exclamation point (!) or a pound sign (#) at the beginning of a line of code indicates a comment line. |



Note Means reader take note. Notes contain helpful suggestions or references to material not covered in the manual.



Tip Means the following information will help you solve a problem.



Caution Means reader be careful. In this situation, you might perform an action that could result in equipment damage or loss of data.

Related Documentation

For more information on coding and specific assistance, see:

<https://developer.cisco.com/site/cmx-mobility-services/>

For more information about Cisco Mobility Services Engine and related products, see:

<http://www.cisco.com/c/en/us/support/wireless/mobility-services-engine/tsd-products-support-series-home.html>

For more information about Cisco Connected Mobile Experiences (Cisco CMX), see:

<http://www.cisco.com/c/en/us/solutions/enterprise-networks/connected-mobile-experiences/index.html>

For more information about Cisco DNA Spaces, see:

<https://support.dnaspaces.io/>

Communications, Services, and Additional Information

- To receive timely, relevant information from Cisco, sign up at [Cisco Profile Manager](#).
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- To submit a service request, visit [Cisco Support](#).
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Cisco Bug Search Tool

[Cisco Bug Search Tool](#) (BST) is a web-based tool that acts as a gateway to the Cisco bug tracking system that maintains a comprehensive list of defects and vulnerabilities in Cisco products and software. BST provides you with detailed defect information about your products and software.



Analytics

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Overview API

POST: Overview Data for Target Areas for Brochure View

Description

This task retrieves overview Data for Target Areas for Brochure View

Table 2: Parameter Details

| JSON body parameter | Description | Allowable values/formats |
|---------------------|--|---|
| type | The type of data requested | <ul style="list-style-type: none"> • deviceCount • deviceDwell • grossShopping • deviceCrossover • connectedDetected • dwellBreakdown |
| period | The period of interest, either specified as a date range, or one of the predefined names | <ul style="list-style-type: none"> • yyyy-mm-dd • yyyy-mm-dd;yyyy-mm-dd • today • yesterday • this week • last week • last 2 weeks • this month • last month • last 3 months • this year • last year • forever |
| timeRange | The time window of interest on each day | <ul style="list-style-type: none"> • HH:mm-HH:mm |
| areas | The list of areas of interest. If none are given, all are considered | A comma-separated list of area ids, or heterarchy levels |

| JSON body parameter | Description | Allowable values/formats |
|---------------------|--|---|
| durationCategories | Filter devices by dwell times for which device visits specified areas. If a device's dwell time falls outside of the range, it is filtered out and not considered a visit. | Time (in minutes) in the form nn-mm where nn is the lower limit and mm the upper limit. The maximum upper limit is 1440 minutes; which is 24 hours, or a full day. Accepted Values: <ul style="list-style-type: none"> • 0-240 • 0-480 • 0-1440 • 5-240 • 5-480 • 5-1440 • 10-240 • 10-480 • 10-1440 • 15-240 • 15-480 • 15-1440 • 30-240 • 30-480 • 30-1440 • 45-240 • 45-480 • 45-1440 • 60-240 • 60-480 • 60-1440 |
| includeStationary | Whether to include stationary devices (default=false) | <ul style="list-style-type: none"> • true • false |

| JSON body parameter | Description | Allowable values/formats |
|---------------------|--|--|
| entirePeriod | Whether to include device visits that occur any time during the entire period or only within a single day (default=false). Applicable only to crossover; ignored for the other metrics. | <ul style="list-style-type: none"> • true • false |
| connectionState | Whether to restrict to either connected or detected devices (default=all). For Connected/Detected metric, this setting is ignored, and "all" is presumed | <ul style="list-style-type: none"> • connected • detected • all |
| percentageOf | If set, does not report absolute numbers, but relative percentage. Ignored for Crossover report | Heterarchy level |
| dwelLimits | The dwell time limits that specifies how dwellers should be grouped together. Values are comma seperated as key:value pairs. Key is the series name and value is the upper dwell time limit of the series. For example, Light:5,Medium:20,Heavy:100 would mean that you consider devices that dwell for less than 5 minutes to be Light; from 5 minutes to 20 minutes to be Medium; and from 20 minutes to 100 to be Heavy. If you want to consider all dwells, pass in -1 as the value. | <ul style="list-style-type: none"> • default • minute • Light:<limit>,Medium:<limit>,Heavy:<limit> • comma separated limit label:limit value |

HTTP Method

POST

Resource URI

/api/analytics/v1/overview

Requires Basic Auth

N

Parameters

Table 3: Parameter Details

| Name | Required | Default | Type | Location | Description |
|------|----------|---------|------------|----------|----------------------------------|
| body | Y | — | JSON array | body | JSON array containing parameters |

Content Type

application/json

Sample Input (JSON)

```
{
  "period": "today",
  "timeRange": "00:00-23:59",
  "areas": "52",
  "type": "deviceCount"
}
```

Sample Output (JSON)

```
{
  "startTime": "00:00",
  "previousEndDate": null,
  "startDate": "2017-03-16",
  "title": "Visitors",
  "executionTime": 32,
  "value": {
    "primary": {
      "title": "Total Visitors",
      "value": 0,
      "peakValue": 0,
      "breakdown": [
        {
          "title": "Repeat Visitors",
          "value": 0
        },
        {
          "title": "New Visitors",
          "value": 0
        }
      ]
    }
  },
  "average": {
    "title": "Total Visitors",
    "value": 0,
    "peakValue": 0,
    "breakdown": [
      {
        "title": "Repeat Visitors",
        "value": 0
      },
      {
        "title": "New Visitors",
        "value": 0
      }
    ]
  }
}
```

```
    ]
  },
  "previousTimeRange": {
    "title": "Total Visitors",
    "value": 0,
    "peakValue": 0,
    "breakdown": [
      {
        "title": "Repeat Visitors",
        "value": 0
      },
      {
        "title": "New Visitors",
        "value": 0
      }
    ]
  }
},
"areas": [
  {
    "id": 52,
    "name": "f0:25:72:3c:f8:10"
  }
],
"previousStartDate": "2017-03-15",
"endDate": null,
"endTime": "23:59"
}
```


Path API

POST: Paths for a Given Period and Areas

Description

The only parameter (body) is a JSON array containing the parameters. The parameters are described below:

Table 4: Parameter Details

| JSON parameter | Description | Allowable values/formats |
|----------------|---|---|
| period | The period of interest, either specified as a date range, or one of the predefined names | <ul style="list-style-type: none"> • yyyy-mm-dd • yyyy-mm-dd;yyyy-mm-dd • today • yesterday • this week • last week • last 2 weeks • this month • last month • last 3 months • this year • last year • forever |
| timeRange | The time window of interest on each day. | • HH:mm-HH:mm |
| targetArea | The ID of the target area for the paths. | The ID of the target area for the paths. |
| allAreas | The list of areas of interest. | A comma-separated list of area IDs <areaId-1>, <areaId-2>, <areaId-3> |
| granularity | The desired geographical granularity. This will replace the areas listed in 'allAreas' with their progeny on the appropriate level. | Heterarchy level |

| JSON parameter | Description | Allowable values/formats |
|--------------------|--|---|
| durationCategories | Filter devices by dwell times for which device visits specified areas. If a device's dwell time falls outside of the range, it is filtered out and not considered a visit. | Time (in minutes) in the form nn-mm where nn is the lower limit and mm the upper limit. The maximum upper limit is 1440 minutes; which is 24 hours, or a full day. Accepted Values: <ul style="list-style-type: none"> • 0-240 • 0-480 • 0-1440 • 5-240 • 5-480 • 5-1440 • 10-240 • 10-480 • 10-1440 • 15-240 • 15-480 • 15-1440 • 30-240 • 30-480 • 30-1440 • 45-240 • 45-480 • 45-1440 • 60-240 • 60-480 • 60-1440 |

HTTP Method

POST

Resource URI

/api/analytics/v1/path

Requires Basic Auth

N

Parameters*Table 5: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|------|----------|---------|------------|----------|-----------------------------------|
| body | Y | — | JSON array | body | JSON array containing parameters. |

Content Type

application/json

Sample Input (JSON)

```
{
  "period": "today",
  "timeRange": "00:00-23:59",
  "granularity": "Building",
  "allAreas": "52,75,80"
}
```

Sample Output (JSON)

```
/* Path Output */
{
  "startTime": "00:00",
  "startDate": "2017-03-07",
  "results": [
    {
      "id": 75,
      "total": 0,
      "medianTransitionTime": 0,
      "ancestry": [
        {
          "level": "Campus",
          "name": "TagTest_Campus_1"
        }
      ],
      "area": "TagTest_Building_1",
      "direction": -1,
      "value": 0,
      "averageTransitionTime": 0
    },
    {
      "id": 80,
      "total": 0,
      "medianTransitionTime": 0,
      "ancestry": [
        {
          "level": "Campus",
          "name": "TagTest_Campus_1"
        }
      ]
    }
  ]
}
```

```

        "area": "TagTest_Building_2",
        "direction": -1,
        "value": 0,
        "averageTransitionTime": 0
    },
    {
        "id": 75,
        "total": 0,
        "medianTransitionTime": 0,
        "ancestry": [
            {
                "level": "Campus",
                "name": "TagTest_Campus_1"
            }
        ],
        "area": "TagTest_Building_1",
        "direction": 1,
        "value": 0,
        "averageTransitionTime": 0
    },
    {
        "id": 80,
        "total": 0,
        "medianTransitionTime": 0,
        "ancestry": [
            {
                "level": "Campus",
                "name": "TagTest_Campus_1"
            }
        ],
        "area": "TagTest_Building_2",
        "direction": 1,
        "value": 0,
        "averageTransitionTime": 0
    }
],
"executionTime": 88,
"requestTruncated": false,
"target": {
    "ancestry": [
        {
            "level": "Campus",
            "name": "campus"
        }
    ]
},
"total": 0,
"id": 52,
"area": "Building_0",
"pathsEnded": 0,
"totalVisits": 0,
"pathsStarted": 0,
"avgDwellPerDevice": 0,
"avgDwellPerVisit": 0,
"totalDevices": 0
},
"insights": {},
"endDate": "2017-03-07",
"endTime": "23:59",
"dataFreshness": {
    "dayOfYear": 66,
    "dayOfMonth": 7,
    "dayOfWeek": 2,
    "era": 1,
    "year": 2017,

```

```
    "minuteOfDay": 1277,  
    "hourOfDay": 21,  
    "weekyear": 2017,  
    "monthOfYear": 3,  
    "yearOfEra": 2017,  
    "yearOfCentury": 17,  
    "centuryOfEra": 20,  
    "millisOfSecond": 782,  
    "millisOfDay": 76673782,  
    "secondOfMinute": 53,  
    "secondOfDay": 76673,  
    "minuteOfHour": 17,  
    "weekOfWeekyear": 10,  
    "millis": 1488921473782,  
    "zone": {  
      "fixed": true,  
      "id": "Etc/UTC"  
    },  
    "chronology": {  
      "zone": {  
        "fixed": true,  
        "id": "Etc/UTC"  
      }  
    },  
    "afterNow": false,  
    "beforeNow": false,  
    "equalNow": true  
  }  
}
```

Device Count API

POST: Device Count for a Given Period and Areas

Description

This API retrieves the device count for a given period and areas.

The only parameter (body) is a JSON array containing the parameters. The parameters are described below

Table 6: Parameter Details

| JSON array parameter | Description | Allowable values/formats |
|----------------------|---|---|
| granularity | The desired granularity. One can limit to top n results (i.e. the n values with highest count) by adding "[n]", or the n bottom results by adding "[-n]". If granularity null is specified, all heterarchy types covered by the areas are returned. | <ul style="list-style-type: none"> • hourly • daily • weekly • monthly • yearly • tag • tag-name • heterarchy level • null |
| period | The period of interest, either specified as a date range, or one of the predefined names | <ul style="list-style-type: none"> • yyyy-mm-dd • yyyy-mm-dd;yyyy-mm-dd • today • yesterday • this week • last week • last 2 weeks • this month • last month • last 3 months • this year • last year • forever |
| timeRange | The time window of interest on each day. | <ul style="list-style-type: none"> • HH:mm-HH:mm |

| JSON array parameter | Description | Allowable values/formats |
|----------------------|--|--|
| aggregate | Whether to aggregate the dwell time by granularity; e.g. showing a total for each day of the week, instead of individual dates | <ul style="list-style-type: none"> • none • sum • avg |
| areas | The list of areas of interest. If none are given, all are considered | A comma-separated list of area ids, or heterarchy levels |
| durationCategories | Filter devices by dwell times for which device visits specified areas. If a device's dwell time falls outside of the range, it is filtered out and not considered a visit. | <p>Time (in minutes) in the form nn-mm where nn is the lower limit and mm the upper limit. The maximum upper limit is 1440 minutes; which is 24 hours, or a full day. Accepted Values:</p> <ul style="list-style-type: none"> • 0-240 • 0-480 • 0-1440 • 5-240 • 5-480 • 5-1440 • 10-240 • 10-480 • 10-1440 • 15-240 • 15-480 • 15-1440 • 30-240 • 30-480 • 30-1440 • 45-240 • 45-480 • 45-1440 • 60-240 • 60-480 • 60-1440 |

| JSON array parameter | Description | Allowable values/formats |
|----------------------|--|--|
| includeStationary | Whether to include stationary devices (default=false) | <ul style="list-style-type: none"> • true • false |
| connectionState | Whether to restrict to either connected or detected devices (default=all) | <ul style="list-style-type: none"> • connected • detected • all |
| percentageOf | If set, does not report absolute numbers, but relative percentage | Heterarchy level |
| areaFilter | <p>If set, restricts the results to areas matching the filter. Use 'descendantOf' to restrict the area selection. This option is used for drill down reports. Use 'subsetOf' to restrict the granularity. This option is used with tag granularity.</p> <p>For example: descendantOf: Campus C1 has Building B1 which zone Z1 and Z2 Campus C2 has Building B2 which zone Z3 query area=Z1,Z2,Z3 and granularity=Building and areaFilter=descendantOf:C1 will return only Building B1</p> <p>For example: subsetOf: Tag T1,T2 assigned to F1, T2,T3 to F2, T3,T4 to F3 query area=F1,F2,F3 and granularity=tag and areaFilter=subsetOf:T1,T2 will return only T1,T2.</p> | <ul style="list-style-type: none"> • descendantOf • subsetOf:comma separated ids |
| expandAll | Include all of the elements descendants in the result | <ul style="list-style-type: none"> • true • false |

HTTP Method

POST

Resource URI

/api/analytics/v1/deviceCount

Requires Basic Auth

N

Parameters

Table 7: Parameter Details

| Name | Required | Default | Type | Location | Description |
|------|----------|---------|------------|----------|----------------------------------|
| body | Y | — | JSON array | body | JSON array containing parameters |

Content Type

application/json

Sample Input (JSON)

```
{
  "period": "today",
  "timeRange": "00:00-23:59",
  "granularity": "Building",
  "areas": "52,75,80"
}
```

Sample Output (JSON)

```
{
  "startTime": "00:00",
  "startDate": "2017-03-16",
  "connectionState": "all",
  "results": [
    {
      "id": -1,
      "ancestry": [],
      "series": [],
      "hasChildren": false,
      "level": "SUPERZONE",
      "area": "Unknown area",
      "data": []
    }
  ],
  "interval": null,
  "executionTime": 23,
  "minValue": 2147483647,
  "endDate": "2017-03-16",
  "endTime": "23:59",
  "dataFreshness": "2017-03-16T03:00:28.833-07:00",
  "maxValue": 0
}
```

Analytics Summary Metrics API

GET: All summary KPI

Description

This API retrieves summary of all KPI.

HTTP Method

GET

Resource URI

/api/analytics/v1/summary

Requires Basic Auth

N

Parameters

None.

Sample Output (JSON)

```
{
  "Top Building dwell": {
    "title": "Top Building dwell",
    "value": {
      "primary": "Nortech-1 (5572.52 min)",
      "secondary": [
        "SJC23 (0.00 min)",
        "SJC24 (0.00 min)",
        "Shell- CBuilding (0.00 min)"
      ],
      "supplementary": "SJC23 (0.00 min)<br>SJC24 (0.00 min)<br>Shell- CBuilding (0.00 min)<br>"
    }
  },
  "Notifications Received": {
    "title": "Notifications Received Rate (5 min avg)",
    "value": {
      "primary": "2.04 notifications/s",
      "secondary": [
        "1 min avg: 2.07",
        "15 min avg: 1.84",
        "Avg since boot: 4.23",
        "Total number of events: 3774166"
      ],
      "supplementary": "1 min avg: 2.07<br>15 min avg: 1.84<br>Avg since boot: 4.23<br>Total number of events: 3774166"
    }
  },
  "RSSI experience": {
    "title": "RSSI experience",
```

```

    "value": {
      "primary": "No devices detected",
      "secondary": [
        "No devices detected"
      ],
      "supplementary": "No devices detected"
    }
  },
  "Uptime": {
    "title": "Uptime",
    "value": {
      "primary": "10 days, 07:35",
      "secondary": [
        "Processors: 20",
        "Max mem: 4528 MiB",
        "Memory: 2849/4528 MiB",
        "Threads: 169"
      ],
      "supplementary": "Processors: 20<br/>Max mem: 4528 MiB<br/>Memory: 2849/4528
MiB<br/>Threads: 169"
    }
  },
  "Connected": {
    "title": "Connected",
    "value": {
      "primary": "1916.33%",
      "secondary": [
        "Total: 392",
        "Detected: -7120 (-1816.33%)",
        "Connected: 7512 (1916.33%)"
      ],
      "supplementary": "Total: 392<br/>Detected: -7120 (-1816.33%)<br/>Connected:
7512 (1916.33%)<br/>"
    }
  },
  "Aggregation performance": {
    "title": "Aggregation performance",
    "value": {
      "primary": "534930964.29 / 0",
      "secondary": [
        "API misses (rate): 166(0) / 0(0) <br/>",
        "API misses as % of total API calls: 9.22/□<br/>",
        "Background updates (rate): 0(0) / 0(0) <br/>"
      ],
      "supplementary": "API misses (rate): 166(0) / 0(0) <br/><br/>API misses as %
of total API calls: 9.22/□<br/><br/>Background updates (rate): 0(0) / 0(0) <br/>"
    }
  },
  "recordRefreshCounts": {
    "pathRecordsRefreshed": 0,
    "repeatRecordsRefreshed": 0,
    "derivedRecordsRefreshed": 0,
    "hourVisitsUpdated": 121942,
    "areaVisitsUpdated": 119586,
    "crossoverRecordsRefreshed": 0
  }
},
"Top Campus count": {
  "title": "Top Campus count",
  "value": {
    "primary": "Nortech Campus (356)",
    "secondary": [
      "Shell (0)",
      "System Campus (0)"
    ],
  },

```

```

        "supplementary": "Shell (0)<br/>System Campus (0)<br/>"
    },
    "Database I/O": {
        "title": "Database I/O Rate (5 min avg)",
        "value": {
            "primary": "0.57 operations/s",
            "secondary": [
                "1 min avg: 0.07",
                "15 min avg: 0.53",
                "Avg since boot: 0.46",
                "Total number of events: 409932"
            ],
            "supplementary": "1 min avg: 0.07<br/>15 min avg: 0.53<br/>Avg since boot:
0.46<br/>Total number of events: 409932"
        }
    },
    "Top Floor dwell": {
        "title": "Top Floor dwell",
        "value": {
            "primary": "1st Floor (5572.53 min)",
            "secondary": [
                "1st floor (CCW remodel) (0.00 min)",
                "2nd floor (Area Addition) (0.00 min)",
                "2nd floor (CCW remodel) (0.00 min)"
            ],
            "supplementary": "1st floor (CCW remodel) (0.00 min)<br/>2nd floor (Area Addition)
(0.00 min)<br/>2nd floor (CCW remodel) (0.00 min)<br/>"
        }
    },
    "Active devices": {
        "title": "Active devices",
        "value": {
            "primary": 356,
            "secondary": [
                "Most recent detection: 17s ago"
            ],
            "supplementary": "Most recent detection: 17s ago"
        }
    },
    "Top Campus dwell": {
        "title": "Top Campus dwell",
        "value": {
            "primary": "Nortech Campus (5572.53 min)",
            "secondary": [
                "Shell (0.00 min)",
                "System Campus (0.00 min)"
            ],
            "supplementary": "Shell (0.00 min)<br/>System Campus (0.00 min)<br/>"
        }
    },
    "Analysis API calls": {
        "title": "Analysis API calls",
        "value": {
            "primary": "Meter not active yet",
            "secondary": [
                "Please wait while data is being collected."
            ],
            "supplementary": "Please wait while data is being collected."
        }
    },
    "Zone API Calls": {
        "title": "Zone API Calls",
        "value": {

```

```

        "primary": "Meter not active yet",
        "secondary": [
            "Please wait while data is being collected."
        ],
        "supplementary": "Please wait while data is being collected."
    }
},
"Top Zone dwell": {
    "title": "Top Zone dwell",
    "value": {
        "primary": "CMX Bar (5959.07 min)",
        "secondary": [
            "School (5763.90 min)",
            "Tm (4175.67 min)",
            "CMX Clinic (1783.57 min)"
        ],
        "supplementary": "School (5763.90 min)<br/>Tm (4175.67 min)<br/>CMX Clinic (1783.57 min)<br/>"
    }
},
"Top Manufacturer": {
    "title": "Top Manufacturer",
    "value": {
        "primary": "Cisco Systems, Inc (310)",
        "secondary": [
            "Aeroscout Ltd. (78)",
            "G2 Microsystems (44)",
            "Hon Hai Precision Ind. Co.,Ltd. (21)"
        ],
        "supplementary": "Aeroscout Ltd. (78)<br/>G2 Microsystems (44)<br/>Hon Hai Precision Ind. Co.,Ltd. (21)<br/>"
    }
},
"Top Zone count": {
    "title": "Top Zone count",
    "value": {
        "primary": "CMX Clinic (106)",
        "secondary": [
            "Tm (86)",
            "CMX Bar (44)",
            "School (20)"
        ],
        "supplementary": "Tm (86)<br/>CMX Bar (44)<br/>School (20)<br/>"
    }
},
"Top Building count": {
    "title": "Top Building count",
    "value": {
        "primary": "Nortech-1 (356)",
        "secondary": [
            "SJC23 (0)",
            "SJC24 (0)",
            "Shell- CBuilding (0)"
        ],
        "supplementary": "SJC23 (0)<br/>SJC24 (0)<br/>Shell- CBuilding (0)<br/>"
    }
},
"Overall Analytics API Calls": {
    "title": "Overall Analytics API Calls Rate (5 min avg)",
    "value": {
        "primary": "0.00 calls/s",
        "secondary": [
            "1 min avg: 0.00",
            "15 min avg: 0.00",

```

```

        "Avg since boot: 0.00",
        "Total number of events: 0"
    ],
    "supplementary": "1 min avg: 0.00</br>15 min avg: 0.00</br>Avg since boot:
0.00</br>Total number of events: 0"
    }
},
"Notification processing time": {
    "title": "Notification processing time (avg duration)",
    "value": {
        "primary": "2.13 ms",
        "secondary": [
            "Min: 0 ms",
            "Max: 9 ms",
            "StDev: 0.94"
        ]
    },
    "supplementary": "Min: 0 ms</br>Max: 9 ms</br>StDev: 0.94"
    }
},
"Location API Calls": {
    "title": "Location API Calls",
    "value": {
        "primary": "Meter not active yet",
        "secondary": [
            "Please wait while data is being collected."
        ]
    },
    "supplementary": "Please wait while data is being collected."
    }
},
"Paths API Calls": {
    "title": "Paths API Calls",
    "value": {
        "primary": "Meter not active yet",
        "secondary": [
            "Please wait while data is being collected."
        ]
    },
    "supplementary": "Please wait while data is being collected."
    }
},
"Age of updated aggregation records": {
    "title": "Age of updated aggregation records",
    "value": {
        "primary": "Meter not active yet",
        "secondary": [
            "Please wait while data is being collected."
        ]
    },
    "supplementary": "Please wait while data is being collected."
    }
},
"Top Floor count": {
    "title": "Top Floor count",
    "value": {
        "primary": "1st Floor (356)",
        "secondary": [
            "1st floor (CCW remodel) (0)",
            "2nd floor (Area Addition) (0)",
            "2nd floor (CCW remodel) (0)"
        ]
    },
    "supplementary": "1st floor (CCW remodel) (0)<br/>2nd floor (Area Addition)
(0)<br/>2nd floor (CCW remodel) (0)<br/>"
    }
},
"Heterarchy": {
    "title": "Heterarchy",

```

```

"value": {
  "primary": "199 active elements",
  "secondary": [
    "Elements: 199/54 [act/inact]",
    "APs: 158/39",
    "POIs: 0/0",
    "PATHs: 0/0",
    "Floors: 8/1",
    "Tags: 19/0",
    "Userlevels: 4/0",
    "Zones: 5/12"
  ],
  "supplementary": "Elements: 199/54 [act/inact]<br/>APs: 158/39<br/>POIs:
0/0<br/>PATHs: 0/0<br/>Floors: 8/1<br/>Tags: 19/0<br/>Userlevels: 4/0<br/>Zones: 5/12"
}
}
}

```

GET: Specific set of Summary KPIs or a list of available ones

Description

This API retrieves a specific set of summary KPIs or a list of available ones.

HTTP Method

GET

Resource URI

/api/analytics/v1/summary/:summaryItem

Requires Basic Auth

N

Parameters

Table 8: Parameter Details

| Name | Required | Default | Type | Location | Description |
|-------------|----------|---------|--------|-------------|---|
| summaryItem | Y | — | String | pathReplace | A comma-separated list of summary KPI to return, or 'availableMetrics' to see the list of metrics available. Use the title parameter. |

Content Type

application/json

Sample Output (JSON)

```
{
  "Top Building dwell": {
    "title": "Top Building dwell",
    "value": {
      "secondary": [],
      "supplementary": "",
      "primary": "Nortech Building (0.00 min)"
    }
  }
}
```


Network State API

POST: Breakdown of Connected and Detected Devices for a Given Period and Areas

Description

This API gives a breakdown of connected and detected devices for a given period and areas. The only parameter (body) is a JSON array containing the parameters. The parameters are described below

Table 9: Parameter Details

| JSON array parameter | Description | Allowable values/formats |
|----------------------|---|---|
| granularity | The desired granularity. One can limit to top n results (i.e. the n values with highest count) by adding "[n]", or the n bottom results by adding "[-n]". If granularity null is specified, all heterarchy types covered by the areas are returned. | <ul style="list-style-type: none"> • hourly • daily • weekly • monthly • yearly • tag • tag-name • heterarchy level • null |
| period | The period of interest, either specified as a date range, or one of the predefined names | <ul style="list-style-type: none"> • yyyy-mm-dd • yyyy-mm-dd;yyyy-mm-dd • today • yesterday • this week • last week • last 2 weeks • this month • last month • last 3 months • this year • last year • forever |
| timeRange | The time window of interest on each day. | <ul style="list-style-type: none"> • HH:mm-HH:mm |
| aggregate | Whether to aggregate the dwell time by granularity; e.g. showing a total for each day of the week, instead of individual dates | <ul style="list-style-type: none"> • none • sum • avg |

| JSON array parameter | Description | Allowable values/formats |
|----------------------|--|---|
| areas | The list of areas of interest. If none are given, all are considered | A comma-separated list of area ids, or heterarchy levels <areaId> <areaId-1>,<areaId-2>,<areaId-3> |
| durationCategories | Filter devices by dwell times for which device visits specified areas. If a device's dwell time falls outside of the range, it is filtered out and not considered a visit. | Time (in minutes) in the form nn-mm where nn is the lower limit and mm the upper limit. The maximum upper limit is 1440 minutes; which is 24 hours, or a full day. Accepted Values: <ul style="list-style-type: none"> • 0-240 • 0-480 • 0-1440 • 5-240 • 5-480 • 5-1440 • 10-240 • 10-480 • 10-1440 • 15-240 • 15-480 • 15-1440 • 30-240 • 30-480 • 30-1440 • 45-240 • 45-480 • 45-1440 • 60-240 • 60-480 • 60-1440 |
| includeStationary | Whether to include stationary devices (default=false) | <ul style="list-style-type: none"> • true • false |

| JSON array parameter | Description | Allowable values/formats |
|----------------------|--|--|
| percentageOf | If set, does not report absolute numbers, but relative percentage | Heterarchy level |
| areaFilter | <p>If set, restricts the results to areas matching the filter. Use 'descendantOf' to restrict the area selection. This option is used for drill down reports. Use 'subsetOf' to restrict the granularity. This option is used with tag granularity.</p> <p>For example: descendantOf: Campus C1 has Building B1 which zone Z1 and Z2 Campus C2 has Building B2 which zone Z3 query area=Z1,Z2,Z3 and granularity=Building and areaFilter=descendantOf:C1 will return only Building B1</p> <p>For example: subsetOf: Tag T1,T2 assigned to F1, T2,T3 to F2, T3,T4 to F3 query area=F1,F2,F3 and granularity=tag and areaFilter=subsetOf:T1,T2 will return only T1,T2.</p> | <ul style="list-style-type: none"> • descendantOf • subsetOf:comma separated ids |
| expandAll | Include all of the elements descendants in the result | <ul style="list-style-type: none"> • true • false |

HTTP Method

POST

Resource URI

/api/analytics/v1/connectedDetected

Requires Basic Auth

N

Parameters*Table 10: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|------|----------|---------|------------|----------|-----------------------------------|
| body | Y | — | JSON array | body | JSON array containing parameters. |

Content Type

application/json

Sample Input (JSON)

```
{
  "period": "today",
  "timeRange": "00:00-23:59",
  "granularity": "hourly",
  "areas": "5786"
}
```

Sample Output (JSON)

```
{
  "startTime": "00:00",
  "startDate": "2017-03-16",
  "results": [
    {
      "id": 5786,
      "ancestry": [
        {
          "level": "Campus",
          "name": "Noritech Campus"
        }
      ],
      "startDate": "2017-03-16",
      "series": [
        "datetime"
      ],
      "hasChildren": true,
      "area": "Noritech-1",
      "data": [
        {
          "dwell": null,
          "values": {
            "connected": 0,
            "detected": 0
          },
          "name": null
        },
        {
          "dwell": null,
          "values": {
            "connected": 0,
            "detected": 0
          },
          "name": null
        },
        {
          "dwell": null,
          "values": {
            "connected": 0,
            "detected": 0
          },
          "name": null
        },
        {
          "dwell": null,
          "values": {
            "connected": 0,
            "detected": 0
          },
          "name": null,
          "incomplete": true
        }
      ]
    }
  ]
}
```

```
    }
  ],
  "interval": "hourly",
  "executionTime": 18,
  "insights": {
    "summary": {},
    "connected": {
      "ancestry": [
        {
          "level": "Campus",
          "name": "Nortech Campus"
        }
      ],
      "id": 5786,
      "index": 0,
      "maxDate": "2017-03-16",
      "name": "Nortech-1",
      "maxTime": "00:00",
      "maxValue": 0
    },
    "detected": {
      "ancestry": [
        {
          "level": "Campus",
          "name": "Nortech Campus"
        }
      ],
      "id": 5786,
      "index": 0,
      "maxDate": "2017-03-16",
      "name": "Nortech-1",
      "maxTime": "00:00",
      "maxValue": 0
    }
  },
  "endDate": "2017-03-16",
  "maxValues": {
    "connected": 0,
    "detected": 0
  },
  "endTime": "23:59",
  "dataFreshness": "2017-03-16T02:53:55.919-07:00",
  "minValues": {
    "connected": 0,
    "detected": 0
  }
}
```

Now API

GET: Retrieve the count of active clients on a floor or multiple floors right now.

Description

The only parameter (body) is a JSON array containing the parameters.

HTTP Method

GET

Resource URI

/api/analytics/v1/now/clientCount

Requires Basic Auth

N

Parameters

None.

Content Type

application/json

Sample Output (JSON)

```
{
  "total": {
    "total": 103,
    "totalNumFloors": 8
  },
  "connectionState": "all",
  "failedFloorIds": [],
  "missingFloorIds": [],
  "executionTime": 147,
  "minValue": 0,
  "data": [
    {
      "floorName": "2nd floor (CCW remodel)",
      "floorId": 207,
      "value": 0
    },
    {
      "floorName": "3rd floor (CCW remodel)",
      "floorId": 157,
      "value": 0
    },
    {
      "floorName": "3rd floor (CCW remodel)",
      "floorId": 232,
      "value": 0
    }
  ]
}
```

```

    },
    {
      "floorName": "1st floor (CCW remodel)",
      "floorId": 106,
      "value": 0
    },
    {
      "floorName": "1st floor (CCW remodel)",
      "floorId": 184,
      "value": 0
    },
    {
      "floorName": "1st Floor",
      "floorId": 11,
      "value": 103
    },
    {
      "floorName": "2nd floor (CCW remodel)",
      "floorId": 132,
      "value": 0
    },
    {
      "floorName": "2nd floor (Area Addition)",
      "floorId": 185,
      "value": 0
    }
  ],
  "date": "2017-12-17",
  "nonFloorIds": [],
  "maxValue": 103
}

```

API History

Table 11: API history

| Release | Modification |
|------------------------|-------------------------|
| Cisco CMX Release 10.3 | This API is introduced. |

POST: Retrieve the count of active clients on a floor or multiple floors right now

Description

This API retrieves the count of active clients on a floor or multiple floors right now. The only parameter (body) is a JSON array containing the parameters.

Parameters

Table 12: Parameter Details

| JSON array parameter | Description | Allowable values/formats |
|----------------------|---|--|
| floors | The list of floors of interest. If none are given, all are considered. | A comma-separated list of floor ids. <floorId1>,<floorId2>,... |
| connectionState | Whether to restrict to either connected or detected devices (default = all) | <ul style="list-style-type: none"> • connected • detected • all |

HTTP Method

POST

Resource URI

/api/analytics/v1/now/clientCount

Requires Basic Auth

N

Parameters

Table 13: Parameter Details

| Name | Required | Default | Type | Location | Description |
|------|----------|---------|------------|----------|-----------------------------------|
| body | Y | — | JSON array | body | JSON array containing parameters. |

Content Type

application/json

Sample Input

```
{
```



```
"floors": "17",
"connectionState": "all"
}
```

Sample Output

```
{
  "total": {
    "total": 0,
    "totalNumFloors": 0
  },
  "connectionState": "all",
  "failedFloorIds": [],
  "missingFloorIds": [
    "17"
  ],
  "executionTime": 1,
  "minValue": 2147483647,
  "data": [],
  "date": "2017-03-16",
  "nonFloorIds": [],
  "maxValue": -2147483648
}
```

API History

Table 14: API history

| Release | Modification |
|------------------------|-------------------------|
| Cisco CMX Release 10.3 | This API is introduced. |

POST: Retrieve the breakdown of connected and detected devices for a floor right now.

Description

This API retrieve the breakdown of connected and detected devices for a floor right now.

HTTP Method

POST

Resource URI

/api/analytics/v1/now/connectedDetected

Requires Basic Auth

N

POST: Retrieve the breakdown of connected and detected devices for a floor right now.

Parameters

Table 15: Parameter Details

| Name | Required | Default | Type | Location | Description |
|------|----------|---------|------------|----------|----------------------------------|
| body | Y | | JSON array | body | JSON array containing parameters |

Content Type

application/json

Sample Input (JSON)

```
{
  "floors": "17"
}
```

Sample Output (JSON)

```
{
  "total": {
    "totalDetected": 0,
    "totalNumFloors": 0,
    "totalAll": 0,
    "totalConnected": 0
  },
  "startTime": "03:22",
  "startDate": "2017-03-16",
  "failedFloorIds": [],
  "missingFloorIds": [
    "17"
  ],
  "results": [],
  "interval": null,
  "executionTime": 2,
  "endDate": "2017-03-16",
  "endTime": "03:22",
  "nonFloorIds": []
}
```

API History

Table 16: API history

| Release | Modification |
|------------------------|-------------------------|
| Cisco CMX Release 10.3 | This API is introduced. |

GET: Retrieve the breakdown of connected and detected devices for a floor right now

Description

The API retrieves the breakdown of connected and detected devices for a floor right now.

HTTP Method

GET

Resource URI

/api/analytics/v1/now/connectedDetected

Requires Basic Auth

N

Parameters

None.

Content Type

application/json

Sample Output (JSON)

```
{
  "total": {
    "totalDetected": 98,
    "totalNumAreas": 1,
    "totalAll": 98,
    "totalConnected": 0
  },
  "startDate": "2017-12-17",
  "interval": null,
  "executionTime": 158,
  "endDate": "2017-12-17",
  "endTime": "22:36",
  "startTime": "22:36",
  "invalidLevelIds": [],
  "missingAreaIds": [],
  "results": [
    {
      "ancestry": [],
      "id": 1,
      "series": [
        "dwell"
      ],
      "hasChildren": true,
      "area": "Campus",
      "data": [
        {
          "dwell": "0-1440",
          "values": {
```

```

        "connected": 0,
        "detected": 98,
        "all": 98
      },
      "name": null
    }
  ]
},
"failedAreaIds": [],
"maxValues": {
  "connected": 0,
  "detected": 98
},
"minValues": {
  "connected": 0,
  "detected": 98
}
}

```

API History

Table 17: API history

| Release | Modification |
|------------------------|-------------------------|
| Cisco CMX Release 10.3 | This API is introduced. |

GET: Retrieve the count of active clients on a single or on multiple campuses/buildings/floors right now

Description

The only parameter (body) is a JSON array containing the parameters.

HTTP Method

GET

Resource URI

/api/analytics/v1/now/clientCount/areas

Requires Basic Auth

N

Parameters

None.

Content Type

application/json

Sample Output (JSON)

```
{
  "invalidLevelIds": [],
  "total": {
    "total": 103,
    "totalNumAreas": 1
  },
  "missingAreaIds": [],
  "connectionState": "all",
  "failedAreaIds": [],
  "executionTime": 147,
  "minValue": 103,
  "data": [
    {
      "areaName": "Campus",
      "value": 103,
      "areaId": 1
    }
  ],
  "date": "2017-12-17",
  "maxValue": 103
}
```

API History*Table 18: API history*

| Release | Modification |
|------------------------|-------------------------|
| Cisco CMX Release 10.4 | This API is introduced. |

POST: Retrieve the count of active clients on a single or on multiple campuses/buildings/floors right now

Description

The only parameter (body) is a JSON array containing the parameters.

HTTP Method

POST

Resource URI

/api/analytics/v1/now/clientCount/areas

Requires Basic Auth

N

Parameters

Table 19: Parameter Details

| Name | Required | Default | Type | Location | Description |
|-----------------|----------|---------|--------|----------|---|
| areas | N | | string | body | The list of areas of interest. If none are given, If none are given, the root level campus is considered. |
| connectionState | N | all | string | body | Whether to restrict to either connected or detected devices. |

Content Type

application/json

Sample Output (JSON)

```
{
  "invalidLevelIds": [],
  "total": {
    "total": 104,
    "totalNumAreas": 1
  },
  "missingAreaIds": [],
  "connectionState": "all",
  "failedAreaIds": [],
  "executionTime": 124,
  "minValue": 104,
  "data": [
    {
      "areaName": "Campus",
      "value": 104,
      "areaId": 1
    }
  ],
  "date": "2017-12-17",
  "maxValue": 104
}
```

API History

Table 20: API history

| Release | Modification |
|------------------------|-------------------------|
| Cisco CMX Release 10.4 | This API is introduced. |

POST: Retrieve the breakdown of connected and detected devices on a single or on multiple campuses/buildings/floors right now

Description

This API retrieves the breakdown of connected and detected devices on a single or on multiple campuses/buildings/floors right now. The only parameter (body) is a JSON array containing the parameters.

HTTP Method

POST

Resource URI

/api/analytics/v1/now/connectedDetected/areas

Requires Basic Auth

N

Parameters

Table 21: Parameter Details

| Name | Required | Default | Type | Location | Description |
|-------|----------|---------|--------|----------|--|
| areas | N | | string | body | The list of areas of interest. If none are given, the root level campus is considered. |

Content Type

application/json

Sample Output (JSON)

```
{
  "total": {
    "totalDetected": 105,
    "totalNumAreas": 1,
    "totalAll": 105,
    "totalConnected": 0
  },
  "startDate": "2017-12-20",
  "interval": null,
  "executionTime": 160,
  "endDate": "2017-12-20",
  "endTime": "00:08",
  "startTime": "00:08",
  "invalidLevelIds": [],
  "missingAreaIds": []
}
```

```

"results": [
  {
    "ancestry": [],
    "id": 1,
    "series": [
      "dwell"
    ],
    "hasChildren": true,
    "area": "Campus",
    "data": [
      {
        "dwell": "0-1440",
        "values": {
          "connected": 0,
          "detected": 105,
          "all": 105
        },
        "name": null
      }
    ]
  }
],
"failedAreaIds": [],
"maxValues": {
  "connected": 0,
  "detected": 105
},
"minValues": {
  "connected": 0,
  "detected": 105
}
}

```

API History

Table 22: API history

| Release | Modification |
|------------------------|-------------------------|
| Cisco CMX Release 10.4 | This API is introduced. |

GET: Retrieve the breakdown of connected and detected devices on a single or on multiple campuses/buildings/floors right now

Description

This API retrieves the breakdown of connected and detected devices on a single or on multiple campuses/buildings/floors right now.

HTTP Method

GET

Resource URI

/api/analytics/v1/now/connectedDetected/areas

Requires Basic Auth

N

Parameters

None.

Content Type

application/json

Sample Output (JSON)

```
{
  "total": {
    "totalDetected": 97,
    "totalNumAreas": 1,
    "totalAll": 97,
    "totalConnected": 0
  },
  "startDate": "2017-12-20",
  "interval": null,
  "executionTime": 158,
  "endDate": "2017-12-20",
  "endTime": "00:15",
  "startTime": "00:15",
  "invalidLevelIds": [],
  "missingAreaIds": [],
  "results": [
    {
      "ancestry": [],
      "id": 1,
      "series": [
        "dwell"
      ],
      "hasChildren": true,
      "area": "Campus",
      "data": [
        {
          "dwell": "0-1440",
          "values": {
            "connected": 0,
            "detected": 97,
            "all": 97
          },
          "name": null
        }
      ]
    }
  ],
  "failedAreaIds": [],
  "maxValues": {
    "connected": 0,
    "detected": 97
  },
  "minValues": {
    "connected": 0,
    "detected": 97
  }
}
```

API History

Table 23: API history

| Release | Modification |
|------------------------|-------------------------|
| Cisco CMX Release 10.4 | This API is introduced. |

Dwell Breakdown API

POST: Breakdown of Dwell Times Spent by Devices for a Given Period and Areas

Description

The only parameter (body) is a JSON array containing the parameters. The parameters are described below:

Table 24: Parameter Details

| JSON Array Parameter | Description | Allowable Values/Formats |
|----------------------|---|---|
| granularity | The desired granularity. | <ul style="list-style-type: none"> hourly daily weekly monthly yearly tag tag-name heterarchy level. One can limit to top "n" results (that is, the "n" values with highest count) by adding "[n]", or the "n" bottom results by adding "[n]" |
| period | The period of interest, specified as either a date range, or one of the predefined names. | <ul style="list-style-type: none"> yyyy-mm-dd yyyy-mm-dd;yyyy-mm-dd today yesterday this week last week last 2 weeks this month last month last 3 months this year last year forever |
| timeRange | The time window of interest on each day. | <ul style="list-style-type: none"> HH:mm-HH:mm |

| JSON Array Parameter | Description | Allowable Values/Formats |
|----------------------|--|--|
| aggregate | Aggregate the dwell time by granularity, for example, showing the total dwell time for each day of the week, instead of individual dates. | <ul style="list-style-type: none"> • none • sum • avg |
| areas | The list of areas of interest. If none are provided, all are considered. | A comma-separated list of area IDs, or hierarchy levels. |
| durationCategories | Filter devices by dwell times for which device visits specified areas. If a device's dwell time falls outside of the range, it is filtered out and not considered a visit. | <p>Time (in minutes) in the form nn-mm where nn is the lower limit and mm the upper limit. The maximum upper limit is 1440 minutes; which is 24 hours, or a full day. Accepted Values:</p> <ul style="list-style-type: none"> • 0-240 • 0-480 • 0-1440 • 5-240 • 5-480 • 5-1440 • 10-240 • 10-480 • 10-1440 • 15-240 • 15-480 • 15-1440 • 30-240 • 30-480 • 30-1440 • 45-240 • 45-480 • 45-1440 • 60-240 • 60-480 • 60-1440 |

| JSON Array Parameter | Description | Allowable Values/Formats |
|----------------------|---|--|
| includeStationary | Whether to include stationary devices (default=false). | <ul style="list-style-type: none"> • true • false |
| connectionState | Whether to restrict connection to either connected or detected devices (default=all). | <ul style="list-style-type: none"> • connected • detected • all |
| percentageOf | If set this parameter, does not report absolute numbers, only relative percentage. | Heterarchy level |
| dwellLimits | The dwell time limit that specifies how dwellers should be grouped together. Pass -1 to catch all. Example: Light: 100, Medium: 200, Heavy:-1. | <ul style="list-style-type: none"> • default • minute • comma separated limit label:limit value |
| areaFilter | <p>If set this parameter, restricts the results to areas matching the filter. Use descendantOf to restrict the area selection. This option is used for drill-down reports. Use 'subsetOf' to restrict the granularity. This option is used with tag granularity.</p> <p>For example: descendantOf: Campus C1 has Building B1 which zone Z1 and Z2 Campus C2 has Building B2 which zone Z3 query area=Z1,Z2,Z3 and granularity=Building and areaFilter=descendantOf:C1 will return only Building B1</p> <p>For example: subsetOf: Tag T1,T2 assigned to F1, T2,T3 to F2, T3,T4 to F3 query area=F1,F2,F3 and granularity=tag and areaFilter=subsetOf:T1,T2 will return only T1,T2.</p> | <ul style="list-style-type: none"> • descendantOf • subsetOf:comma separated ids |
| expandAll | Include all the elements descendants in the result. | <ul style="list-style-type: none"> • true • false |

HTTP Method

POST

Resource URI

/api/analytics/v1/dwellBreakdown

Requires Basic Auth

N

Parameters

Table 25: Parameter Details

| Name | Required | Default | Type | Location | Description |
|------|----------|---------|------------|----------|-----------------------------------|
| body | Y | — | JSON array | body | JSON array containing parameters. |

Content Type

application/json

Sample Input (JSON)

```
{
  "period": "today",
  "timeRange": "00:00-23:59",
  "granularity": "hourly",
  "areas": "52,75"
}
```

Sample Output (JSON)

```
{
  "startTime": "00:00",
  "startDate": "2017-03-16",
  "results": [
    {
      "id": 53,
      "ancestry": [
        {
          "level": "Building",
          "name": "REQ"
        },
        {
          "level": "Campus",
          "name": "Richfield"
        }
      ],
      "series": [
        "datetime",
        "dwell"
      ],
      "hasChildren": false,
      "area": "2nd Floor",
      "data": []
    },
    {
      "id": 75,
```

```
    "ancestry": [
      {
        "level": "Floor",
        "name": "Site 4"
      },
      {
        "level": "Building",
        "name": "Site 4"
      },
      {
        "level": "Campus",
        "name": "San Jose Outdoor"
      }
    ],
    "series": [
      "datetime",
      "dwell"
    ],
    "hasChildren": false,
    "area": "f4:0f:1b:1a:82:90",
    "data": []
  }
},
"interval": "hourly",
"executionTime": 0,
"insights": {
  "summary": {}
},
"endDate": "2017-03-16",
"maxValues": {},
"endTime": "23:59",
"dataFreshness": "2017-03-16T02:53:58.054-07:00",
"minValues": {}
}
```

Dwelltime API

POST: Dwell Time for a Given Period and Areas

Description

This API retrieves dwell Time for a given period and areas. The only parameter is a JSON array containing the parameters. The parameters are described below

Table 26: Parameter Details

| JSON array parameter | Description | Allowable values/formats |
|----------------------|---|---|
| granularity | The desired granularity. One can limit to top n results (i.e. the n values with highest count) by adding "[n]", or the n bottom results by adding "[-n]". If granularity null is specified, all heterarchy types covered by the areas are returned. | <ul style="list-style-type: none"> • hourly • daily • weekly • monthly • yearly • tag • tag-name • heterarchy level • null |
| period | The period of interest, either specified as a date range, or one of the predefined names | <ul style="list-style-type: none"> • yyyy-mm-dd • yyyy-mm-dd;yyyy-mm-dd • today • yesterday • this week • last week • last 2 weeks • this month • last month • last 3 months • this year • last year • forever |
| timeRange | The time window of interest on each day | <ul style="list-style-type: none"> • HH:mm-HH:mm |
| aggregate | Whether to aggregate the dwell time by granularity; e.g. showing a total for each day of the week, instead of individual dates | <ul style="list-style-type: none"> • none • sum • avg |

| JSON array parameter | Description | Allowable values/formats |
|----------------------|--|---|
| areas | The list of areas of interest. If none are given, all are considered | A comma-separated list of area ids, or heterarchy levels <areaId> <areaId-1>,<areaId-2>,<areaId-3> |
| durationCategories | Filter devices by dwell times for which device visits specified areas. If a device's dwell time falls outside of the range, it is filtered out and not considered a visit. | Time (in minutes) in the form nn-mm where nn is the lower limit and mm the upper limit. The maximum upper limit is 1440 minutes; which is 24 hours, or a full day. Accepted Values: <ul style="list-style-type: none"> • 0-240 • 0-480 • 0-1440 • 5-240 • 5-480 • 5-1440 • 10-240 • 10-480 • 10-1440 • 15-240 • 15-480 • 15-1440 • 30-240 • 30-480 • 30-1440 • 45-240 • 45-480 • 45-1440 • 60-240 • 60-480 • 60-1440 |
| includeStationary | Whether to include stationary devices | <ul style="list-style-type: none"> • true • false |

| JSON array parameter | Description | Allowable values/formats |
|----------------------|--|--|
| connectionState | Whether to restrict to either connected or detected devices (default=all) | <ul style="list-style-type: none"> connected detected all |
| percentageOf | If set, does not report absolute numbers, but relative percentage | Heterarchy level |
| areaFilter | <p>If set, restricts the results to areas matching the filter. Use 'descendantOf' to restrict the area selection. This option is used for drill down reports. Use 'subsetOf' to restrict the granularity. This option is used with tag granularity.</p> <p>For example: descendantOf: Campus C1 has Building B1 which zone Z1 and Z2 Campus C2 has Building B2 which zone Z3 query area=Z1,Z2,Z3 and granularity=Building and areaFilter=descendantOf:C1 will return only Building B1</p> <p>For example: subsetOf: Tag T1,T2 assigned to F1, T2,T3 to F2, T3,T4 to F3 query area=F1,F2,F3 and granularity=tag and areaFilter=subsetOf:T1,T2 will return only T1,T2.</p> | <ul style="list-style-type: none"> descendantOf subsetOf:comma separated ids |
| expandAll | Include all of the elements descendants in the result | <ul style="list-style-type: none"> true false |

HTTP Method

POST

Resource URI

/api/analytics/v1/deviceDwell

Requires Basic Auth

N

Parameters*Table 27: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|------|----------|---------|------------|----------|-----------------------------------|
| body | Y | — | JSON array | body | JSON array containing parameters. |

Content Type

application/json

Sample Input (JSON)

```
{
  "period": "today",
  "timeRange": "00:00-23:59",
  "granularity": "hourly",
  "areas": "52,75"
}
```

Sample Output (JSON)

```
{
  "startTime": "00:00",
  "startDate": "2017-03-16",
  "connectionState": "all",
  "results": [
    {
      "id": 53,
      "ancestry": [
        {
          "level": "Building",
          "name": "REQ"
        },
        {
          "level": "Campus",
          "name": "Richfield"
        }
      ],
      "series": [
        "datetime"
      ],
      "hasChildren": false,
      "level": "FLOOR",
      "area": "2nd Floor",
      "data": []
    },
    {
      "id": 75,
      "ancestry": [
        {
          "level": "Floor",
          "name": "Site 4"
        },
        {
          "level": "Building",
          "name": "Site 4"
        },
        {
          "level": "Campus",
          "name": "San Jose Outdoor"
        }
      ],
      "series": [
        "datetime"
      ],
      "hasChildren": false,
      "level": "AP",
      "area": "f4:0f:1b:1a:82:90",
      "data": []
    }
  ]
}
```

```
    }  
  ],  
  "interval": "hourly",  
  "executionTime": 0,  
  "minValue": 2147483647,  
  "endDate": "2017-03-16",  
  "endTime": "23:59",  
  "dataFreshness": "2017-03-16T02:58:04.319-07:00",  
  "maxValue": 0  
}
```

Repeat Devices API

GET: Is Repeat Device in All Areas

Description

This API returns whether or not a device is a repeat device in any area.

HTTP Method

GET

Resource URI

/api/analytics/v1/isRepeatDevice/:deviceMAC

Requires Basic Auth

N

Parameters

Table 28: Parameter Details

| Name | Required | Default | Type | Location | Description |
|-----------|----------|---------|--------|-------------|-----------------------------------|
| deviceMAC | Y | | String | pathReplace | MAC address of device in question |

Content Type

application/json

API History

Table 29: API history

| Release | Modification |
|------------------------|-------------------------|
| Cisco CMX Release 10.4 | This API is introduced. |

GET: Is Repeat Device in One Area

Description

This API returns whether or not a device is a repeat device in a particular area.

HTTP Method

GET

Resource URI

/api/analytics/v1/isRepeatDevice/:deviceMAC/:areaId

Requires Basic Auth

N

Parameters*Table 30: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|-----------|----------|---------|--------|-------------|-----------------------------------|
| deviceMAC | Y | | String | pathReplace | MAC Address of Device in question |
| areaId | Y | | String | pathReplace | Numeric id of the area |

Content Type

application/json

API History*Table 31: API history*

| Release | Modification |
|------------------------|-------------------------|
| Cisco CMX Release 10.4 | This API is introduced. |

GET: Repeat Device Statistics in All Areas (Detailed)

Description

This API returns information regarding when a device was seen in all areas. In order to access the full features of this API, the feature flag `location.compactlocationhistory` must be enabled.

HTTP Method

GET

Resource URI

/api/analytics/v1/repeatDeviceStats/:deviceMAC

Requires Basic Auth

N

Parameters*Table 32: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|-----------|----------|---------|--------|-------------|-----------------------------------|
| deviceMAC | Y | | String | pathReplace | MAC Address of Device in question |

Content Type

application/json

API History*Table 33: API history*

| Release | Modification |
|------------------------|-------------------------|
| Cisco CMX Release 10.4 | This API is introduced. |

GET: Repeat Device Statistics in One Area (Detailed)

Description

This API returns information regarding when a device was seen in a particular area and any of its children areas. In order to access the full features of this API, the feature flag `location.compactlocationhistory` must be enabled.

HTTP Method

GET

Resource URI

/api/analytics/v1/repeatDeviceStats/:deviceMAC/:areaId

Requires Basic Auth

N

Parameters*Table 34: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|-----------|----------|---------|--------|-------------|-----------------------------------|
| deviceMAC | Y | | String | pathReplace | MAC Address of Device in question |
| areaId | Y | | String | pathReplace | Numeric id of the area |

Content Type

application/json

API History*Table 35: API history*

| Release | Modification |
|------------------------|-------------------------|
| Cisco CMX Release 10.4 | This API is introduced. |

GET: Repeat Device Information in One Area (Compact)

Description

This API returns information regarding when a device was seen in a particular area. In order to access the full features of this API, the feature flag `location.compactlocationhistory` must be enabled.

HTTP Method

GET

Resource URI

/api/analytics/v1/repeatDeviceStatsLite/:deviceMAC/:areaId

Requires OAuth

N

Parameters*Table 36: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|-----------|----------|---------|--------|-------------|-----------------------------------|
| deviceMAC | Y | | String | pathReplace | MAC Address of Device in question |
| areaId | Y | | String | pathReplace | Numeric id of the area |

Content Type

application/json

API History*Table 37: API history*

| Release | Modification |
|------------------------|-------------------------|
| Cisco CMX Release 10.4 | This API is introduced. |

GET: Repeat Device information in All Top-Level Areas (Compact)

Description

This API returns information regarding when a device was seen in a top level area elements. In order to access the full features of this API, the feature flag `location.compactlocationhistory` must be enabled.

HTTP Method

GET

Resource URI

/api/analytics/v1/repeatDeviceStatsLite/:deviceMAC

Requires Basic Auth

N

Parameters

Table 38: Parameter Details

| Name | Required | Default | Type | Location | Description |
|-----------|----------|---------|--------|-------------|-----------------------------------|
| deviceMAC | Y | | String | pathReplace | MAC Address of Device in question |

Content Type

application/json

API History

Table 39: API history

| Release | Modification |
|------------------------|-------------------------|
| Cisco CMX Release 10.4 | This API is introduced. |



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APIs for Exporting Large Dataset from CMX Cassandra Database

GET: All Available Files

Description

This API returns the list of all history data export archives that are available for download over HTTP. Note that Cisco CMX automatically deletes exported archives eight days after the date of creation.

HTTP Method

GET

Resource URI

/api/config/v1/historydata/export

Requires OAuth

N

Parameters

None.

Content Type

The response is a JSON and contains the URL of all available files.

Sample Output

application/json. The response contains the following:

- A timestamp that indicates when the archive was exported.
- The total size of the file(s) in bytes.
- A URL (or a list of URLs) which serves the file over HTTP.

The file format is '.tar.gz'. You can untar it to convert it to a raw text file. If the file is greater than 400 MB in size, the response is split into a list of files of 400MB each.

```
[{
  "lastModified": "Fri Jan 12 01:35:20 UTC 2018",
  "totalFileSizeInBytes": 22719368,
  "fileUrl": [
    "https://10.30.114.115/common/data/export/CassandraDataset_1515720916/CassandraDataset_1515720916.tar.gz.aa",
    "https://10.30.114.115/common/data/export/CassandraDataset_1515720916/CassandraDataset_1515720916.tar.gz.ab",
    "https://10.30.114.115/common/data/export/CassandraDataset_1515720916/CassandraDataset_1515720916.tar.gz.ac"
  ]
},
{
  "lastModified": "Fri Jan 12 01:35:40 UTC 2018",
  "totalFileSizeInBytes": 132,
```

```

"fileUrl": [
  "https://10.30.114.115/common/data/export/CassandraDataset_1515720939/CassandraDataset_1515720939.tar.gz"
],
},
{
  "lastModified": "Fri Jan 12 01:35:26 UTC 2018",
  "totalFileSizeInBytes": 22719371,
  "fileUrl": [
    "https://10.30.114.115/common/data/export/CassandraDataset_1515720922/CassandraDataset_1515720922.tar.gz.ab",
    "https://10.30.114.115/common/data/export/CassandraDataset_1515720922/CassandraDataset_1515720922.tar.gz.aa",
    "https://10.30.114.115/common/data/export/CassandraDataset_1515720922/CassandraDataset_1515720922.tar.gz.ac"
  ]
},
{
  "lastModified": "Fri Jan 12 01:35:45 UTC 2018",
  "totalFileSizeInBytes": 132,
  "fileUrl": [
    "https://10.30.114.115/common/data/export/CassandraDataset_1515720943/CassandraDataset_1515720943.tar.gz"
  ]
},
{
  "lastModified": "Fri Jan 12 01:35:32 UTC 2018",
  "totalFileSizeInBytes": 22719368,
  "fileUrl": [
    "https://10.30.114.115/common/data/export/CassandraDataset_1515720928/CassandraDataset_1515720928.tar.gz.ab",
    "https://10.30.114.115/common/data/export/CassandraDataset_1515720928/CassandraDataset_1515720928.tar.gz.ac",
    "https://10.30.114.115/common/data/export/CassandraDataset_1515720928/CassandraDataset_1515720928.tar.gz.aa"
  ]
},
{
  "lastModified": "Fri Jan 12 01:35:42 UTC 2018",
  "totalFileSizeInBytes": 132,
  "fileUrl": [
    "https://10.30.114.115/common/data/export/CassandraDataset_1515720941/CassandraDataset_1515720941.tar.gz"
  ]
}
]

```

To merge the parts of .tar.gz files, use the following UNIX commands:

```

cat CassandraDataset_1515720916.tar.gz.aa CassandraDataset_1515720916.tar.gz.ab
CassandraDataset_1515720916.tar.gz.ac >> CassandraDataset_1515720916.tar.gz

```

OR

```

cat CassandraDataset_1515720916.tar.gz.* >> CassandraDataset_1515720916.tar.gz

```

API History

Table 40: API history

| Release | Modification |
|------------------------|-------------------------|
| Cisco CMX Release 10.5 | This API is introduced. |

GET: Is Data Export Running

Description

This API returns if the data export utility (Cassandra data extraction process) is currently running or not. Note that CMX allows for only one extraction process to run at a time.

If the process is not running, the API returns FALSE indicating that a new extraction job can be triggered using the POST API.

If the process is running, the API returns TRUE indicating that an instance of the extraction job is already running. You can keep querying this API with an interval of a few minutes to check the status before submitting another job.

HTTP Method

GET

Resource URI

/api/config/v1/historydata/export/isrunning

Requires OAuth

N

Parameters

None.

Content Type

The response is a JSON and contains the URL of all available files.

Sample Output

application/json

```
{"isRunning":false}
```

```
{"isRunning":true}
```

API History

Table 41: API history

| Release | Modification |
|------------------------|-------------------------|
| Cisco CMX Release 10.5 | This API is introduced. |

POST: Trigger History data export

Description

This API triggers data export for a given day or date. The API enables you to extract a large amount of raw history data in JSON format from the Cisco CMX's Cassandra database.

When the API is invoked, Cisco CMX spawns a process to extract data from Cassandra. All the history records that match the query parameters are dumped into a data file. This data file can then be downloaded from Cisco CMX server over HTTP and you can perform your own analytics by processing the JSON data. Each line in the data file represents a history record.

Note that you cannot run multiple extraction jobs at a time. If the job is already running, The API returns **HTTP 403 Forbidden**, meaning that the job is already running.

Let us observe how the API works.

The API accepts the *date* for which data needs to be exported. This parameter is mandatory.

If you want to export all the history records that are generated on 2017/11/29,

```
POST /api/config/v1/historydata/export?date=2017/11/29
```

Once the extraction is complete, the exported data file can be downloaded over HTTP.

```
GET /api/config/v1/historydata/export
```

You could also mention a specific range of hours for which you want to export the data for a given date. The value of *fromHour* cannot be greater than the value of *toHour*.

If you want to export history data generated on 2017/11/29, starting Midnight to 4 AM.

```
POST /api/config/v1/historydata/export?date=2017/11/29&fromHour=0&toHour=4
```

If you want to export history data generated on 2017/11/29 starting Midnight to 9 AM.

```
HTTP POST /api/config/v1/historydata/export?date=2017/11/29&fromHour=0&toHour=9
```

If you want to export history data generated on 2017/11/29 starting Midnight to 1 PM.

```
POST /api/config/v1/historydata/export?date=2017/11/29&fromHour=0&toHour=13
```

If you want to export history data generated on 2017/11/29 starting 4 PM to 9 PM.

```
POST /api/config/v1/historydata/export?date=2017/11/29&fromHour=16&toHour=21
```

HTTP Method

POST

Resource URI

/api/config/v1/historydata/export

Requires OAuth

N

Parameters

Table 42: Parameter Details

| Name | Required | Default | Type | Location | Description |
|----------|----------|---------|--------|----------|---|
| date | Y | — | String | body | The date for which data export needs to be triggered. The expected date format is yyyy/MM/dd . |
| fromHour | N | — | String | body | This field expects an integer value within the range zero to 23. The field is used to export the data for a specific duration of the day. The API looks at <i>fromHour</i> and <i>toHour</i> parameters and exports data accordingly. |
| toHour | N | — | String | body | This field expects an integer value within the range one to 24. This is used to export the data for a specific duration of the day. The API looks at <i>fromHour</i> and <i>toHour</i> parameters and exports data accordingly. |

Content Type

application/json

Sample Input

```
http://<host-ip-address>/api/config/v1/historydata/export?date=2017/11/29&fromHour=0&toHour=1
```

Sample Output

Response:

```
"Cassandra data export utility triggered successfully."
```

Notification subscription API

GET: All Notification Subscriptions

Description

This API returns all notification subscriptions.

HTTP Method

GET

Resource URI

/api/config/v1/notifications

Requires OAuth

N

Parameters

None.

Content Type

application/json

Sample Output (JSON)

```
[
  {
    "name": "operational-insights-tag",
    "userId": "admin",
    "rules": [
      {
        "conditions": [
          {
            "condition": "locationupdate.deviceType == tag"
          }
        ]
      }
    ],
    "subscribers": [
      {
        "receivers": [
          {
            "uri": "https://opinsights.cisco.com:443/api/am/v1/events",
            "messageFormat": "JSON",
            "headers": {
              "Authorization": "JWT
              eyJ0eXAiOiJKV1QiLCJhbGciOiJIUzI1NiJ9.eyJ1eW91dCI6ImFkbWlnIiwiaWF0IjoiMTY5MTM3MzQ3MjI1LmVudC9iYXNpbnQ6In0"
            }
          }
        ],
        "qos": "AT_MOST_ONCE"
      }
    ]
  }
]
```

```

        }
      ]
    },
    "enabled": true,
    "internal": true,
    "cloud": true,
    "enableMacScrambling": false,
    "macScramblingSalt": "",
    "notificationType": "LocationUpdate"
  },
  {
    "name": "gateway-blemgmtadmin-feedback-io89bg",
    "userId": "local-user",
    "rules": [
      {
        "conditions": []
      }
    ],
    "subscribers": [
      {
        "receivers": [
          {
            "uri":
"https://c2f8pk.exe.api.us-west-2.amazonaws.com/43/stage/listener/5f9678-a0f-4674-925-86510e72cc3?identifier=1991c30-8fd-11e7-51c-b2388f84",
            "messageFormat": "JSON",
            "headers": null,
            "qos": "AT_MOST_ONCE"
          }
        ]
      }
    ],
    "enabled": true,
    "internal": true,
    "cloud": true,
    "enableMacScrambling": false,
    "macScramblingSalt": "",
    "notificationType": "LodestarConfigUpdate"
  },
  {
    "name": "gateway-blemanager.cmxcis.co-feedback-io89bg",
    "userId": "local-user",
    "rules": [
      {
        "conditions": []
      }
    ],
    "subscribers": [
      {
        "receivers": [
          {
            "uri":
"https://ic89g.cmcis.co/43/api/ble/v1/manager/?where=DEVELOPMENT&cluster=IN&device=026b7261m0129026a1f7d1264d909&band=1",
            "messageFormat": "JSON",
            "headers": null,
            "qos": "AT_MOST_ONCE"
          }
        ]
      }
    ],
    "enabled": true,
    "internal": true,

```

```

    "cloud": true,
    "enableMacScrambling": false,
    "macScramblingSalt": "",
    "notificationType": "LodestarConfigUpdate"
  },
  {
    "name": "Harvey Updates",
    "userId": "admin",
    "rules": [
      {
        "conditions": []
      }
    ],
    "subscribers": [
      {
        "receivers": [
          {
            "uri": "http://54.203.15.211:9094/api/v1/notify",
            "messageFormat": "JSON",
            "headers": null,
            "qos": "AT_MOST_ONCE"
          }
        ]
      }
    ],
    "enabled": true,
    "internal": false,
    "cloud": false,
    "enableMacScrambling": false,
    "macScramblingSalt": "",
    "notificationType": "LocationUpdate"
  },
  {
    "name": "gateway-blemanager.cmxcis.co-mapChange-io89bg",
    "userId": "local-user",
    "rules": [
      {
        "conditions": []
      }
    ],
    "subscribers": [
      {
        "receivers": [
          {
            "uri": "https://ic89.cmcis.co:43/api/ble/v1/loc/notify?token=054C1KQ1C1G1C1L1E1N19_ez0WbRZ1G1h1D1z19_0h1E1N1h1z11261D19_091N1J",
            "messageFormat": "JSON",
            "headers": null,
            "qos": "AT_MOST_ONCE"
          }
        ]
      }
    ],
    "enabled": true,
    "internal": true,
    "cloud": true,
    "enableMacScrambling": false,
    "macScramblingSalt": "",
    "notificationType": "NetworkDesignChanged"
  },
  {
    "name": "CMX_Api_Server_Notification_1",
    "userId": "admin",

```

```

"rules": [
  {
    "conditions": [
      {
        "condition": "locationupdate.deviceType == client"
      }
    ]
  }
],
"subscribers": [
  {
    "receivers": [
      {
        "uri": "http://127.0.0.1:9094/api/notify/v1/location",
        "messageFormat": "JSON",
        "headers": null,
        "qos": "AT_MOST_ONCE"
      }
    ]
  }
],
"enabled": true,
"internal": true,
"cloud": false,
"enableMacScrambling": false,
"macScramblingSalt": "",
"notificationType": "LocationUpdate"
},
{
  "name": "Nbound Notification",
  "userId": "admin",
  "rules": [
    {
      "conditions": [
        {
          "condition": "locationupdate.deviceType == client"
        }
      ]
    }
  ],
  "subscribers": [
    {
      "receivers": [
        {
          "uri": "https://data.cmxappsandbox.com:443/api/sdk/v1/notifications",
          "messageFormat": "JSON",
          "headers": {
            "x-jwt-token":
"eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJ0ZW5hbnRvczI6MTUsInRlcmFudElkiOiJoaXN0.2S28kxWDSg-GFNfpTYCKuI_ZrwHLR0cn9XL19DaRm4",
            "Content-Type": "application/json"
          },
          "qos": "AT_MOST_ONCE"
        }
      ]
    }
  ],
  "enabled": true,
  "internal": false,
  "cloud": false,
  "enableMacScrambling": false,
  "macScramblingSalt": "secret",
  "notificationType": "LocationUpdate"
}

```

```

    },
    {
      "name": "gateway-blemgmtadmin-bleinfo-io89bg",
      "userId": "local-user",
      "rules": [
        {
          "conditions": [
            {
              "condition": "bletagupdate.isBle == true"
            },
            {
              "condition": "bletagupdate.deviceType == tag"
            }
          ]
        }
      ],
      "subscribers": [
        {
          "receivers": [
            {
              "uri":
https://c2f8pkcentepluwest-2.amazonaws.com/43/tag/listener/5f59768-0f-4674-925-8650e7cc3c7cc?notificationId=191c30-8fd1-1e7451c4b23188834,
              "messageFormat": "JSON",
              "headers": null,
              "qos": "AT_MOST_ONCE"
            }
          ]
        }
      ],
      "enabled": true,
      "internal": true,
      "cloud": true,
      "enableMacScrambling": false,
      "macScramblingSalt": "",
      "notificationType": "BleTagUpdate"
    },
    {
      "name": "gateway-blemgmtadmin-mapChange-io89bg",
      "userId": "local-user",
      "rules": [
        {
          "conditions": []
        }
      ],
      "subscribers": [
        {
          "receivers": [
            {
              "uri":
https://c2f8pkcentepluwest-2.amazonaws.com/43/tag/listener/5f59768-0f-4674-925-8650e7cc3c7cc?notificationId=191c30-8fd1-1e7451c4b23188834,
              "messageFormat": "JSON",
              "headers": null,
              "qos": "AT_MOST_ONCE"
            }
          ]
        }
      ],
      "enabled": true,
      "internal": true,
      "cloud": true,
      "enableMacScrambling": false,
      "macScramblingSalt": "",

```

```

    "notificationType": "NetworkDesignChanged"
  },
  {
    "name": "gateway-blemanager.cmxcis.co-bleinfo-io89bg",
    "userId": "local-user",
    "rules": [
      {
        "conditions": [
          {
            "condition": "bletagupdate.isBle == true"
          },
          {
            "condition": "bletagupdate.deviceType == tag"
          }
        ]
      }
    ],
    "subscribers": [
      {
        "receivers": [
          {
            "uri": "https://127.0.0.1:9094/api/ble/v1/notify?deviceType=BLE_TAG_UPDATE&deviceType=BLE_TAG_UPDATE",
            "messageFormat": "JSON",
            "headers": null,
            "qos": "AT_MOST_ONCE"
          }
        ]
      }
    ],
    "enabled": true,
    "internal": true,
    "cloud": true,
    "enableMacScrambling": false,
    "macScramblingSalt": "",
    "notificationType": "BleTagUpdate"
  },
  {
    "name": "CMX_Api_Server_Notification_2",
    "userId": "admin",
    "rules": [
      {
        "conditions": []
      }
    ],
    "subscribers": [
      {
        "receivers": [
          {
            "uri": "http://127.0.0.1:9094/api/notify/v1/absence",
            "messageFormat": "JSON",
            "headers": null,
            "qos": "AT_MOST_ONCE"
          }
        ]
      }
    ],
    "enabled": true,
    "internal": true,
    "cloud": false,
    "enableMacScrambling": false,
    "macScramblingSalt": "",
    "notificationType": "Absence"
  }

```

```

    },
    {
      "name": "PythonAW",
      "userId": "admin",
      "rules": [
        {
          "conditions": [
            {
              "condition": "locationupdate.macAddressList == 98:07:2d:8d:75:e8;"
            },
            {
              "condition": "locationupdate.deviceType == tag"
            }
          ]
        }
      ],
      "subscribers": [
        {
          "receivers": [
            {
              "uri": "http://dsladden.pythonanywhere.com:80",
              "messageFormat": "JSON",
              "headers": null,
              "qos": "AT_MOST_ONCE"
            }
          ]
        }
      ],
      "enabled": true,
      "internal": false,
      "cloud": false,
      "enableMacScrambling": false,
      "macScramblingSalt": "",
      "notificationType": "LocationUpdate"
    },
    {
      "name": "PythonAWN",
      "userId": "admin",
      "rules": [
        {
          "conditions": []
        }
      ],
      "subscribers": [
        {
          "receivers": [
            {
              "uri": "http://taibrahi.pythonanywhere.com:80",
              "messageFormat": "JSON",
              "headers": null,
              "qos": "AT_MOST_ONCE"
            }
          ]
        }
      ],
      "enabled": false,
      "internal": false,
      "cloud": false,
      "enableMacScrambling": true,
      "macScramblingSalt": "",
      "notificationType": "NetworkDesignChanged"
    },
    {
      "name": "HeaderDone",

```



```

    "userId": "admin",
    "rules": [
      {
        "conditions": []
      }
    ],
    "subscribers": [
      {
        "receivers": [
          {
            "uri": "http://10.41.32.235:8000",
            "messageFormat": "JSON",
            "headers": null,
            "qos": "AT_MOST_ONCE"
          }
        ]
      }
    ],
    "enabled": false,
    "internal": false,
    "cloud": false,
    "enableMacScrambling": false,
    "macScramblingSalt": "",
    "notificationType": "LocationUpdate"
  }
]

```

GET: Notifications by Name

Description

This API returns a notification subscription by name.

HTTP Method

GET

Resource URI

/api/config/v1/notifications/:name

Requires OAuth

N

Parameters

Table 43: Parameter Details

| Name | Required | Default | Type | Location | Description |
|------|----------|---------|--------|-------------|--------------------|
| name | Y | — | String | pathReplace | Notification Name. |

Content Type

application/json

GET: Notification Subscription Availability

Description

This API checks if a notification subscription exists. It returns FOUND(302) if exists, 404 is not found.

HTTP Method

GET

Resource URI

/api/config/v1/notifications/exists/:name

Requires OAuth

N

Parameters

Table 44: Parameter Details

| Name | Required | Default | Type | Location | Description |
|------|----------|---------|--------|-------------|--------------------|
| name | Y | — | String | pathReplace | Notification Name. |

Content Type

application/json

PUT: Add Notification Subscription

Description

This API allows you to add a notification subscription.

HTTP Method

PUT

Resource URI

/api/config/v1/notification

Requires OAuth

N

Parameters

Table 45: Parameter Details

| Name | Required | Default | Type | Location | Description |
|-------------|----------|---------|--------|----------|----------------|
| userId | Y | — | string | body | User ID. |
| rules | Y | — | text | body | List of rules. |
| subscribers | Y | — | text | body | Subscribers |

| Name | Required | Default | Type | Location | Description |
|------------------|----------|---------|------------|----------|--|
| notificationType | Y | — | enumerated | body | <p>Choose one of the following notification types:</p> <ul style="list-style-type: none"> • Any • Absence • AreaChange • Association • BatteryLife • Chokepoint • Containment • Emergency • Movement • Presence • LocationUpdate • Zone • Location • ServiceStatus • NetworkDesignChanged • CpuUsage • MemoryUsage • DiskUsage • BeaconMovement • BeaconAbsence • Update • InOut • PasserbyDetected • PasserbyBecameVisitor • VisitorWentAway • SiteEntryChanged |
| enabled | N | — | enumerated | body | <p>enabled</p> <ul style="list-style-type: none"> • true • false |

| Name | Required | Default | Type | Location | Description |
|---------------------|----------|---------|------------|----------|---|
| enableMacScrambling | N | — | enumerated | body | enableMacScrambling <ul style="list-style-type: none"> • true • false |

Content Type

application/json

Sample Input (JSON)

application/json

```

{
  "name": "locupdate",
  "userId": "admin",
  "rules": [
    {
      "conditions": [
        {
          "condition": "locationupdate.macAddressList ==
00:0c:cc:4f:5f:ba;00:24:d7:37:68:d8;00:24:d7:59:8f:2c;00:0b:6b:a8:56:9f;"
        }
      ]
    }
  ],
  "subscribers": [
    {
      "receivers": [
        {
          "uri": "http://172.19.35.203:7123",
          "messageFormat": "JSON",
          "headers": null,
          "qos": "AT_MOST_ONCE"
        }
      ]
    }
  ],
  "enabled": true,
  "internal": false,
  "cloud": false,
  "enableMacScrambling": false,
  "macScramblingSalt": "",
  "notificationType": "LocationUpdate"
}

```

DELETE: Notification Subscription by Notification Name

Description

This API allows you to delete a notification subscription.

HTTP Method

DELETE

Resource URI

/api/config/v1/notifications/:name

Requires OAuth

N

Parameters*Table 46: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|------|----------|---------|--------|-------------|--------------------|
| name | Y | — | String | pathReplace | Notification Name. |

Content Type

application/json

GET: System Alert Subscription

Description

This API returns a system alert notification subscription by name.

HTTP Method

GET

Resource URI

/api/config/v1/notifications/alerts

Requires OAuth

N

Parameters

None.

Content Type

application/json

Sample Output (JSON)

```
[
  {
    "name": "serviceIsCrashed",
    "userId": "admin",
    "rules": [
```

```

        {
            "conditions": [
                {
                    "condition": "servicestatus.status == CRASHED"
                }
            ]
        }
    ],
    "subscribers": [
        {
            "receivers": [
                {
                    "uri": "local://local",
                    "messageFormat": "JSON",
                    "headers": null,
                    "qos": "AT_MOST_ONCE"
                }
            ]
        }
    ],
    "enabled": true,
    "internal": false,
    "cloud": false,
    "enableMacScrambling": false,
    "macScramblingSalt": "",
    "severity": "Critical",
    "notificationType": "ServiceStatus"
},
{
    "name": "serviceIsDown",
    "userId": "admin",
    "rules": [
        {
            "conditions": [
                {
                    "condition": "servicestatus.status == STOPPED"
                }
            ]
        }
    ],
    "subscribers": [
        {
            "receivers": [
                {
                    "uri": "local://local",
                    "messageFormat": "JSON",
                    "headers": null,
                    "qos": "AT_MOST_ONCE"
                }
            ]
        }
    ],
    "enabled": true,
    "internal": false,
    "cloud": false,
    "enableMacScrambling": false,
    "macScramblingSalt": "",
    "severity": "Info",
    "notificationType": "ServiceStatus"
}
]

```

GET: Notifications by Name

Description

This API returns a system alert notification subscription by name.

HTTP Method

GET

Resource URI

/api/config/v1/notifications/alerts/:name

Requires OAuth

N

Parameters

Table 47: Parameter Details

| Name | Required | Default | Type | Location | Description |
|------|----------|---------|--------|-------------|--------------------|
| name | Y | — | String | pathReplace | Notification Name. |

Content Type

application/json

PUT: System Alert Subscription

Description

This API allows you to add a system alert subscription.

HTTP Method

PUT

Resource URI

/api/config/v1/notifications/alert

Requires OAuth

N

Parameters

Table 48: Parameter Details

| Name | Required | Default | Type | Location | Description |
|-------------|----------|---------|------------|----------|--|
| severity | Y | — | enumerated | body | Choose one of the following severity levels: <ul style="list-style-type: none">• Critical• Major• Minor• Warning• Info• Cleared |
| userId | Y | — | string | body | User ID. |
| rules | Y | — | text | body | List of rules. |
| subscribers | Y | — | text | body | Subscribers |

| Name | Required | Default | Type | Location | Description |
|------------------|----------|---------|------------|----------|--|
| notificationType | Y | — | enumerated | body | <p>Choose one of the following notification types:</p> <ul style="list-style-type: none"> • Any • Absence • AreaChange • Association • BatteryLife • Chokepoint • Containment • Emergency • Movement • Presence • LocationUpdate • Zone • Location • ServiceStatus • NetworkDesignChanged • CpuUsage • MemoryUsage • DiskUsage • BeaconMovement • BeaconAbsence • Update • InOut • PasserbyDetected • PasserbyBecameVisitor • VisitorWentAway • SiteEntryChanged |
| enabled | N | — | enumerated | body | <p>enabled</p> <ul style="list-style-type: none"> • true • false |

| Name | Required | Default | Type | Location | Description |
|---------------------|----------|---------|------------|----------|---|
| enableMacScrambling | N | — | enumerated | body | enableMacScrambling <ul style="list-style-type: none"> • true • false |

Content Type

application/json

DELETE: Notification Alert Subscription

Description

This API allows you to delete a system alert notification subscription.

HTTP Method

DELETE

Resource URI

/api/config/v1/notifications/alerts/:name

Requires OAuth

N

Parameters*Table 49: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|------|----------|---------|--------|-------------|--------------------|
| name | Y | — | String | pathReplace | Notification Name. |

Content Type

application/json

POST: Change status of notification by name

Description

This API enables or disables a notification subscription by name.

HTTP Method

POST

Resource URI

/api/config/v1/notifications/:name/:user

Requires Basic Auth

N

Parameters*Table 50: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|-------------|----------------------------|
| name | Y | | String | pathReplace | Notification Name |
| user | Y | | String | pathReplace | Name of Notification Owner |
| action | Y | | String | pathReplace | Enable/Disable |

Content Type

application/json

API History*Table 51: API History*

| Release | Modification |
|------------------------|-------------------------|
| Cisco CMX Release 10.4 | This API is introduced. |

POST: Change Status of Notification by Name

Description

This API enable/disable a notification subscription by name.

HTTP Method

POST

Resource URI

/api/config/v1/notifications/:name/:action

Requires OAuth

N

Parameters*Table 52: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|-------------|-----------------|----------------|-------------|-----------------|--------------------|
| name | Y | — | String | pathReplace | Notification Name. |
| action | Y | — | String | pathReplace | Enable/Disable |

Content Type

application/json

Northbound notification types and attributes API

GET: Get Supported Northbound Notifications

Description

This API returns all supported northbound notification types and applicable attributes for the notification rules.

HTTP Method

GET

Resource URI

/api/configuration/v1/attributes

Requires OAuth

N

Parameters

None.

Content Type

application/json

Sample Output

```
{
  "networkdesignchanged": {
    "triggerHeterarchyChanged": {
      "name": "triggerHeterarchyChanged",
      "dataType": "BOOLEAN",
      "needValueCheck": false,
      "evaluateByProvider": false,
      "validValueSet": [],
      "nameSpace": "networkdesignchanged"
    },
    "triggerNetworkDesignChanged": {
      "name": "triggerNetworkDesignChanged",
      "dataType": "BOOLEAN",
      "needValueCheck": false,
      "evaluateByProvider": false,
      "validValueSet": [],
      "nameSpace": "networkdesignchanged"
    }
  },
  "servicestatus": {
    "oldStatus": {
      "name": "oldStatus",
      "dataType": "ENUM",
      "needValueCheck": false,

```

```
        "evaluateByProvider": false,
        "validValueSet": [
            "STOPPED",
            "RUNNING",
            "CRASHED",
            "DISABLED"
        ],
        "nameSpace": "servicestatus"
    },
    "status": {
        "name": "status",
        "dataType": "ENUM",
        "needValueCheck": true,
        "evaluateByProvider": true,
        "validValueSet": [
            "STOPPED",
            "RUNNING",
            "CRASHED",
            "DISABLED"
        ],
        "nameSpace": "servicestatus"
    },
    "statusChanged": {
        "name": "statusChanged",
        "dataType": "BOOLEAN",
        "needValueCheck": true,
        "evaluateByProvider": false,
        "validValueSet": [],
        "nameSpace": "servicestatus"
    }
}
}
```

Alerts API

GET: Count of Active Alerts

Description

This API returns a count of active alerts.

HTTP Method

GET

Resource URI

/api/config/v1/alerts/count

Requires OAuth

N

Parameters

None.

Content Type

application/json

GET: All Alerts

Description

This API returns all active alerts.

HTTP Method

GET

Resource URI

/api/config/v1/alerts

Requires OAuth

N

Parameters

None.

Content Type

application/json

Sample Output (JSON)

```
[
  {
    "changedOn": 1490159411911,
    "tenantId": 0,
    "lastNotificationTime": 1490159411918,
    "hashkey": -1446685026,
    "alertType": "NMSP_CONNECTION_STATUS",
    "alertStatus": "Unhandled",
    "severity": "Critical",
    "origin": "cmx-vmdev83 WLC: 10.32.168.50",
    "source": "NMSPLB",
    "alarmDescription": "NMSP connection status is inactive for WLC 10.32.168.50",
    "lastEmail": 0,
    "refId": "NMSPLB"
  }
]
```

History alerts API

GET: Unique Alerts by Time Interval

Description

This API returns a list of unique alerts by time interval.

HTTP Method

GET

Resource URI

/api/config/v1/history/alerts/unique

Requires Basic Auth

N

Parameters

Table 53: Parameter Details

| Name | Required | Default | Type | Location | Description |
|-----------|----------|---------|--------|----------|---|
| startTime | Y | — | Number | query | Specifies the start time in milliseconds. |
| endTime | Y | — | Number | query | Specifies the end time in milliseconds. |

Content Type

application/json

Table 54: API History

| Release | Modification |
|------------------------|-----------------------------|
| Cisco CMX Release 10.4 | This command is deprecated. |

Map resources API

GET: Count of All Map Elements

Description

This API provides count of campuses, buildings, and floors.

HTTP Method

GET

Resource URI

/api/config/v1/maps/count

Requires OAuth

N

Parameters

None.

Content Type

application/json

Sample Output (JSON)

```
{
  "totalCampuses": 2,
  "totalBuildings": 3,
  "totalFloors": 8,
  "totalAps": 158,
  "campusCounts": [
    {
      "campusName": "Noritech Campus",
      "totalBuildings": 1,
      "buildingCounts": [
        {
          "buildingName": "Noritech-1",
          "totalFloors": 1,
          "floorCounts": [
            {
              "floorName": "1st Floor",
              "apCount": 14
            }
          ]
        }
      ]
    }
  ],
  {
    "campusName": "System Campus",
    "totalBuildings": 2,
```

```

"buildingCounts": [
  {
    "buildingName": "SJC23",
    "totalFloors": 3,
    "floorCounts": [
      {
        "floorName": "1st floor (CCW remodel)",
        "apCount": 25
      },
      {
        "floorName": "2nd floor (CCW remodel)",
        "apCount": 25
      },
      {
        "floorName": "3rd floor (CCW remodel)",
        "apCount": 24
      }
    ]
  },
  {
    "buildingName": "SJC24",
    "totalFloors": 4,
    "floorCounts": [
      {
        "floorName": "2nd floor (CCW remodel)",
        "apCount": 21
      },
      {
        "floorName": "2nd floor (Area Addition)",
        "apCount": 0
      },
      {
        "floorName": "3rd floor (CCW remodel)",
        "apCount": 24
      },
      {
        "floorName": "1st floor (CCW remodel)",
        "apCount": 25
      }
    ]
  }
]
}

```

GET: List of all Building Names.

Description

This API provides a list of all buildings.

HTTP Method

GET

Resource URI

/api/config/v1/maps/building/list/:name

Requires Basic Auth

N

Parameters*Table 55: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|------|----------|---------|--------|-------------|-------------|
| name | Y | — | String | pathReplace | Campus Name |

Content Type

application/json

API History*Table 56: API History*

| Release | Modification |
|------------------------|-------------------------|
| Cisco CMX Release 10.4 | This API is introduced. |

GET: List of all Building Names

Description

This API provides a list of all buildings.

HTTP Method

GET

Resource URI

/api/config/v1/maps/building/list

Requires Basic Auth

N

Parameters

None.

Content Type

application/json

Sample Output (JSON)

```
[
  "Nortech Campus>Nortech-1",
  "System Campus>SJC24",
  "System Campus>SJC23"
]
```

API History*Table 57: API History*

| Release | Modification |
|------------------------|-------------------------|
| Cisco CMX Release 10.4 | This API is introduced. |

GET: List of all Floor Names

Description

This API provides a list of all Floors in the system.

HTTP Method

GET

Resource URI

/api/config/v1/maps/floor/list/:name

Requires Basic Auth

N

Parameters*Table 58: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|------|----------|---------|--------|-------------|---------------|
| name | Y | — | String | pathReplace | Building Name |

Content Type

application/json

API History

Table 59: API History

| Release | Modification |
|------------------------|-------------------------|
| Cisco CMX Release 10.4 | This API is introduced. |

GET: List of all Floor Names

Description

This API provides a list of all floors in the system.

HTTP Method

GET

Resource URI

/api/config/v1/maps/floor/list

Requires Basic Auth

N

Parameters

None.

Content Type

application/json

Sample Output (JSON)

```
[
  "System Campus>SJC23>3rd floor (CCW remodel)",
  "System Campus>SJC23>2nd floor (CCW remodel)",
  "Nortech Campus>Nortech-1>1st Floor",
  "System Campus>SJC23>1st floor (CCW remodel)",
  "System Campus>SJC24>2nd floor (CCW remodel)",
  "System Campus>SJC24>3rd floor (CCW remodel)",
  "System Campus>SJC24>2nd floor (Area Addition)",
  "System Campus>SJC24>1st floor (CCW remodel)"
]
```

API History

Table 60: API History

| Release | Modification |
|------------------------|-------------------------|
| Cisco CMX Release 10.4 | This API is introduced. |

GET: All Maps

Description

This API returns all maps.

HTTP Method

GET

Resource URI

/api/config/v1/maps

Requires OAuth

N

Parameters

None.

Content Type

application/json

Sample Output (JSON)

```
{
  "version": 0,
  "campuses": [
    {
      "objectVersion": 0,
      "name": "System Campus",
      "dimension": {
        "length": 99999,
        "width": 99999,
        "height": 99999,
        "offsetX": 0,
        "offsetY": 0,
        "unit": "FEET"
      },
      "image": null,
      "buildingList": [
        {
          "aesUId": -6105692415270583000,
          "objectVersion": 0,
          "name": "SJC23",
          "dimension": {
            "length": 300,
            "width": 500,
            "height": 10,
            "offsetX": 0,
            "offsetY": 0,
            "unit": "FEET"
          },
          "image": null,
          "floorList": [
```



```

{
  "aesUid": -5970502993869536000,
  "calibrationModelId": -5970502993867530000,
  "objectVersion": 0,
  "name": "1st floor (CCW remodel)",
  "dimension": {
    "length": 249.9,
    "width": 299.9,
    "height": 10,
    "offsetX": 0,
    "offsetY": 0,
    "unit": "FEET"
  },
  "isOutdoor": false,
  "floorNumber": 1,
  "image": {
    "imageName": "cadConversion_1463400556649_f.jpg",
    "zoomLevel": 5,
    "width": 3276,
    "height": 2715,
    "size": 3276,
    "maxResolution": 16,
    "colorDepth": 8
  },
  "gpsMarkers": null,
  "zones": null,
  "obstacles": [
    {
      "type": "THICK_WALL",
      "attenuation": 0,
      "obstacleCoordinates": [
        {
          "x": 2.0488472,
          "y": 3.2261696,
          "z": 0,
          "unit": "FEET"
        },
        {
          "x": 2.561059,
          "y": 236.22719,
          "z": 0,
          "unit": "FEET"
        }
      ]
    },
    {
      "type": "NORMAL_WALL",
      "attenuation": 0,
      "obstacleCoordinates": [
        {
          "x": 91.68591,
          "y": 233.66675,
          "z": 0,
          "unit": "FEET"
        },
        {
          "x": 93.73476,
          "y": 212.15895,
          "z": 0,
          "unit": "FEET"
        }
      ]
    }
  ]
},
],

```

```

"accessPoints": [
  {
    "floorId": -5970502993869536000,
    "angle": 1.57,
    "apType": 2,
    "switchName": null,
    "name": "sjc23-11-cap1",
    "radioMacAddress": "00:42:68:a2:2a:80",
    "ethMacAddress": null,
    "ipAddress": null,
    "numOfSlots": 2,
    "mapCoordinates": {
      "x": 12.216251,
      "y": 13.826434,
      "z": 10,
      "unit": "FEET"
    },
    "apMode": "LOCAL",
    "apInterfaces": [
      {
        "band": "IEEE_802_11_B",
        "slotNumber": 0,
        "channelAssignment": 1,
        "channelNumber": 1,
        "txPowerLevel": 8,
        "antennaPattern": "Internal-3700-2.4GHz",
        "antennaAngle": 1.5707964,
        "antennaElevAngle": 0,
        "antennaGain": 8,
        "antennaDiversity": 3,
        "antennaMode": 1,
        "antennaType": 1,
        "txPowerControl": 1,
        "unit": "RADIAN",
        "dualBandSlot": false
      },
      {
        "band": "IEEE_802_11_A",
        "slotNumber": 1,
        "channelAssignment": 1,
        "channelNumber": 36,
        "txPowerLevel": 3,
        "antennaPattern": "Internal-3700-5GHz",
        "antennaAngle": 1.5707964,
        "antennaElevAngle": 0,
        "antennaGain": 8,
        "antennaDiversity": 3,
        "antennaMode": 1,
        "antennaType": 1,
        "txPowerControl": 1,
        "unit": "RADIAN",
        "dualBandSlot": false
      }
    ],
    "floorIdString": "-5970502993869536658",
    "geoCoordinate": null,
    "deviceDetails": null
  },
  {
    "floorId": -5970502993869536000,
    "angle": 1.57,
    "apType": 2,
    "switchName": null,
    "name": "sjc23-11-cap10",
  }
]

```

```

"radioMacAddress": "00:42:68:ae:2c:20",
"ethMacAddress": null,
"ipAddress": null,
"numOfSlots": 2,
"mapCoordinates": {
  "x": 22.229992,
  "y": 100.062416,
  "z": 10,
  "unit": "FEET"
},
"apMode": "LOCAL",
"apInterfaces": [
  {
    "band": "IEEE_802_11_B",
    "slotNumber": 0,
    "channelAssignment": 1,
    "channelNumber": 1,
    "txPowerLevel": 8,
    "antennaPattern": "Internal-3700-2.4GHz",
    "antennaAngle": 1.5707964,
    "antennaElevAngle": 0,
    "antennaGain": 8,
    "antennaDiversity": 3,
    "antennaMode": 1,
    "antennaType": 1,
    "txPowerControl": 1,
    "unit": "RADIAN",
    "dualBandSlot": false
  },
  {
    "band": "IEEE_802_11_A",
    "slotNumber": 1,
    "channelAssignment": 1,
    "channelNumber": 64,
    "txPowerLevel": 4,
    "antennaPattern": "Internal-3700-5GHz",
    "antennaAngle": 1.5707964,
    "antennaElevAngle": 0,
    "antennaGain": 8,
    "antennaDiversity": 3,
    "antennaMode": 1,
    "antennaType": 1,
    "txPowerControl": 1,
    "unit": "RADIAN",
    "dualBandSlot": false
  }
],
"floorIdString": "-5970502993869536658",
"geoCoordinate": null,
"deviceDetails": null
}
],
"floorIdString": "-5970502993869536658",
"geoCoordinate": null,
"deviceDetails": null
}
],
"referenceMarkers": null,
"exciters": null,
"filterRegions": [
  {
    "regionType": "OUTSIDE",
    "regionCoordinates": [
      {

```

```

        "x": 0,
        "y": 0,
        "z": 0,
        "unit": "FEET"
      },
      {
        "x": 299.9,
        "y": 0,
        "z": 0,
        "unit": "FEET"
      },
      {
        "x": 299.9,
        "y": 249.9,
        "z": 0,
        "unit": "FEET"
      },
      {
        "x": 0,
        "y": 249.9,
        "z": 0,
        "unit": "FEET"
      }
    ],
    "isDefault": false
  }
],
"filterRails": null,
"hierarchyName": "System Campus>SJC23>1st floor (CCW remodel)",
"aesUidString": "-5970502993869536658",
"geoLocationCapable": "NO_GPS_MARKERS_PRESENT",
"mode": null,
"floorModeDetails": {
  "mode": "RSSI",
  "requestedModeSet": false
}
}
],
"aesUid": 727035700041482200,
"aesUidString": "727035700041482262",
"members": null
}
]
}

```

GET: Campus by Name

Description

This API returns a campus by name.

HTTP Method

GET

Resource URI

/api/config/v1/maps/info/:campusName

Requires OAuth

N

Parameters*Table 61: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|------------|----------|---------|--------|-------------|-------------|
| campusName | Y | — | String | pathReplace | Campus Name |

Content Type

application/json

GET: Building by Name Inside Specific Campus

Description

This API returns a building by name.

HTTP Method

GET

Resource URI

/api/config/v1/maps/info/:campusName/:buildingName

Requires OAuth

N

Parameters*Table 62: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|--------------|----------|---------|--------|-------------|----------------|
| campusName | Y | — | String | pathReplace | Campus Name. |
| buildingName | Y | — | String | pathReplace | Building Name. |

Content Type

application/json

GET: Floor Inside Specific Building and Specific Campus

Description

This API returns a floor by name based on a specific building and campus.

HTTP Method

GET

Resource URI

/api/config/v1/maps/info/:campusName/:buildingName/:floorName

Requires OAuth

N

Parameters

Table 63: Parameter Details

| Name | Required | Default | Type | Location | Description |
|--------------|----------|---------|--------|-------------|----------------|
| campusName | Y | — | String | pathReplace | Campus Name. |
| buildingName | Y | — | String | pathReplace | Building Name. |
| floorName | Y | — | String | pathReplace | Floor Name. |

Content Type

application/json

GET: Floor Image

Description

This API returns an image for a given combination of campus, building, and floor name.

HTTP Method

GET

Resource URI

/api/config/v1/maps/image/:campusName/:buildingName/:floorName

Requires Basic Auth

N

Parameters

Table 64: Parameter Details

| Name | Required | Default | Type | Location | Description |
|--------------|----------|---------|--------|-------------|----------------|
| campusName | Y | — | String | pathReplace | Campus Name. |
| buildingName | Y | — | String | pathReplace | Building Name. |
| floorName | Y | — | String | pathReplace | Floor Name. |

Content Type

application/json

GET: Image by Name

Description

This API returns an image by image name.

HTTP Method

GET

Resource URI

/api/config/v1/maps/imagesource/:imageName

Requires OAuth

N

Parameters

Table 65: Parameter Details

| Name | Required | Default | Type | Location | Description |
|-----------|----------|---------|--------|-------------|-------------|
| imageName | Y | — | String | pathReplace | Image Name. |

Content Type

application/json

Sites API

GET: All Sites

Description

This API returns all the presence sites.

HTTP Method

GET

Resource URI

/api/config/v1/sites

Requires OAuth

N

Parameters

None.

Content Type

application/json

Example

```
[{"changedOn":0,"aesUid":1487056035936,"name":"PSL  
28, 2017 3:37:50  
PM", "objectVersion":0}]
```

GET: Site Details by ID or Name

Description

This API returns the presence site for the specified ID or Name.

HTTP Method

GET

Resource URI

/api/config/v1/sites/:id

Requires OAuth

N

Parameters

None.

Content Type

application/json

System preferences API

GET: Type of Device

Description

This API gets the type of box.

HTTP Method

GET

Resource URI

/api/config/v1/system/type

Requires Basic Auth

N

Parameters

None.

Content Type

application/json

Sample Output (JSON)

```
{
  "num_cpus": 20,
  "box_type": "High-End"
}
```

API History

Table 66: API History

| Release | Modification |
|------------------------|-------------------------|
| Cisco CMX Release 10.4 | This API is introduced. |

GET: System Settings Preferences

Description

This API retrieves system settings.

HTTP Method

GET

Resource URI

/api/config/v1/system/preferences/:component/:key

Requires OAuth

N

Parameters*Table 67: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|-----------|----------|---------|--------|-------------|--|
| component | Y | — | String | pathReplace | The component. |
| key | N | — | String | pathReplace | The key to retrieve. If not set, retrieves all keys for the given component. |

Content Type

application/json

PUT: System Settings

Description

This API enable you to store system settings. This operation can only be performed by users in the 'Admin' group.

HTTP Method

PUT

Resource URI

/api/config/v1/system/preferences/:component/:key

Requires OAuth

N

Parameters*Table 68: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|-----------|----------|---------|--------|-------------|----------------|
| component | Y | — | String | pathReplace | The component. |
| key | Y | — | String | pathReplace | The key. |
| String | Y | — | string | body | Value. |

Content Type

application/json

GET: Gets the System Time

Description**HTTP Method**

GET

Resource URI

/api/config/v1/system/time

Requires OAuth

N

Parameters

None.

Content Type

application/json

Sample Output (JSON)

```
{
  "ISO8601Utils": "2017-12-18T08:56:16Z",
  "timeZoneOffset": -28800000,
  "serverTimeUTC": 1513587376429,
  "serverTime": "Mon Dec 18 00:56:16 PST 2017",
  "timeZone": "Pacific Standard Time"
}
```

Opt In Client API

GET: Hashed MAC for a Given Real Macaddress

Description

This API returns the hashed MAC for a given real macaddress.

HTTP Method

GET

Resource URI

/api/config/v1/optInClientParams/:clusterId/hash

Requires Basic Auth

N

Parameters

Table 69: Parameter Details

| Name | Required | Default | Type | Location | Description |
|-----------|----------|---------|--------|-------------|-----------------------|
| clusterId | Y | 1 | String | pathReplace | clusterId (default 1) |
| realMac | Y | | String | query | Real macaddress |

Content Type

application/json

API History

Table 70: API History

| Release | Modification |
|------------------------|-------------------------|
| Cisco CMX Release 10.5 | This API is introduced. |

GET: List of Opt-In devices

Description

HTTP Method

GET

Resource URI

/api/config/v1/optInClientParams/:clusterId

Requires Basic Auth

N

Parameters

Table 71: Parameter Details

| Name | Required | Default | Type | Location | Description |
|-----------|----------|---------|--------|-------------|-----------------------|
| clusterId | Y | 1 | String | pathReplace | clusterId (default 1) |

Content Type

application/json

API History

Table 72: API History

| Release | Modification |
|------------------------|-------------------------|
| Cisco CMX Release 10.5 | This API is introduced. |

POST: Add client device(s) to Opt-In List

Description

You can add devices by either specifying macaddresses or OptInClients. When both are specified, API would give preference to macaddresses. When all the Location and Analytics tracked devices are same, input the macaddresses. When some of the Location devices have not given consent for Analytics tracking, then input them through the OptInClients. It performs an append operation i.e. adding given devices to the existing Opt-In list.

HTTP Method

POST

Resource URI

/api/config/v1/optInClientParams/:clusterId

Requires Basic Auth

N

Parameters

Table 73: Parameter Details

| Name | Required | Default | Type | Location | Description |
|--------------|----------|---------|--------|-------------|---|
| clusterId | Y | 1 | String | pathReplace | clusterId (default 1) |
| macaddresses | Y | | array | body | List of real macaddresses separated by comma. Ensure macaddresses are nested within the square brackets [] to be considered as list, otherwise this operation would fail |

| Name | Required | Default | Type | Location | Description |
|-------------|----------|---------|-------|----------|---|
| OptInClient | N | | array | body | <p>List of OptInClient. When macaddresses are specified, OptInClient list is optional</p> <p>Ensure OptInClient are nested within the square brackets [] to be considered as list, otherwise this operation would fail</p> <p>for e.g.</p> <pre>[{"macaddress": "aa:bb:cc:dd:ee:ff", "analyticsOptIn": true}, {"macaddress": "aa:bb:cc:dd:ee:ff", "analyticsOptIn": true}]</pre> |

Content Type

application/json

API History*Table 74: API History*

| Release | Modification |
|------------------------|-------------------------|
| Cisco CMX Release 10.5 | This API is introduced. |

Zone Count Register API

Users API

GET: Generate Password for User

Description**HTTP Method**

GET

Resource URI

/api/config/v1/aaa/genpassword

Requires Basic Auth

N

Parameters

None.

Content Type

application/json

Sample Output

```
{
  "generatedPwd": "Qakzw&luxrwreknu"
}
```

GET: User by Username

Description

This API retrieves user by username.

HTTP Method

GET

Resource URI

/api/config/v1/aaa/users/:username

Requires Basic Auth

N

Parameters*Table 75: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|----------|----------|---------|--------|-------------|-------------|
| username | Y | — | String | pathReplace | Username |

Content Type

application/json

Sample Output (JSON)

10.30.114.188/api/config/v1/aaa/users/admin

```
{
  "id": 102,
  "username": "mika",
  "password": "*****",
  "firstname": "mika",
  "lastname": "mika",
  "userGroups": [],
  "roles": [
    {
      "id": 5,
      "name": "Read Only",
      "privileges": []
    }
  ],
  "developerkey": null,
  "lastlogin": 1507596970322
}
```

GET: All Roles**Description**

This API gets all roles.

HTTP Method

GET

Resource URI

/api/config/v1/aaa/roles

Requires Basic Auth

N

Parameters

None.

Content Type

application/json

Sample Output (JSON)

```
[
  {
    "id": 1,
    "name": "System",
    "privileges": []
  },
  {
    "id": 2,
    "name": "Manage",
    "privileges": []
  },
  {
    "id": 3,
    "name": "Analytics",
    "privileges": []
  },
  {
    "id": 4,
    "name": "Connect",
    "privileges": []
  },
  {
    "id": 7,
    "name": "Location",
    "privileges": []
  },
  {
    "id": 8,
    "name": "ConnectExperience",
    "privileges": []
  },
  {
    "id": 9,
    "name": "Admin",
    "privileges": []
  },
  {
    "id": 5,
    "name": "Read Only",
    "privileges": []
  }
]
```

GET: Check for Password expiry

Description

This API checks for password expiry

HTTP Method

GET

Resource URI

/api/config/v1/aaa/evalpassword

Requires Basic Auth

N

Parameters

None.

Content Type

application/json

Sample Output

```
{
  "isPasswordExpired": "no"
}
```

API History

Table 76: API History

| Release | Modification |
|------------------------|-------------------------|
| Cisco CMX Release 10.5 | This API is introduced. |

GET: All Users in the System

Description

This API gets the details of all users in the system.

HTTP Method

GET

Resource URI

/api/config/v1/aaa/users

Requires Basic Auth

N

Parameters

None.

Content Type

application/json

Sample Output

```
[
  {
    "id": 1,
    "username": "admin",
    "password": "*****",
    "firstname": "Admin",
    "lastname": "User",
    "userGroups": [],
    "roles": [
      {
        "id": 9,
        "name": "Admin",
        "privileges": []
      }
    ],
    "developerkey": "xjPksHwUQm6bUdITCymREKaoShqB2HPQ",
    "lastlogin": 1519852131789
  }
]
```

Version API

GET: Current CMX Image Version

Description

This API returns the current version of the CMX Image.

HTTP Method

GET

Resource URI

/api/config/v1/version/image

Requires OAuth

N

Parameters

None.

Content Type

application/json

Sample Output (JSON)

```
{
  "cmx_image_version": "CISCO_CMX-10.4.0-93.cmx",
  "cmx_rpm_versions": [
    "cisco_cmx_connect-10.4.0-18",
    "cisco_cmx_wips-10.2.0-96",
    "cisco_cmx-10.4.0-1234"
  ]
}
```

Heterarchy API

GET: List of Children Superzone IDs of a Heterarchy Element

Description

The call retrieves children superzone IDs of a heterarchy element and, under them, the AES IDs of the nested children floors. The element is identified by the path of the API call (either the full path or the id of the element—see Add/Update zones or tags for details on obtaining the element id).

HTTP Method

GET

Resource URI

/api/config/v1/heterarchy/:pathSegments/childrenfloors

Requires Basic Auth

N

Parameters

Table 77: Parameter Details

| Name | Required | Default | Type | Location | Description |
|--------------|----------|---------|--------|-------------|--|
| pathSegments | N | — | String | pathReplace | Full path to the element or element id. |
| validDate | N | — | String | query | Show elements valid at given date (yyyy-mm-dd HH:mm:ss) Allowed values/formats: yyyy-mm-dd HH:mm:ss. |

| Name | Required | Default | Type | Location | Description |
|-------|----------|---------|--------|----------|--|
| level | N | — | String | query | Level name (SUPERZONE, FLOOR, AP, POI, or ZONE) Allowed values/formats: SUPERZONE FLOOR AP ZONE POI. |

Content Type

application/json

API History

Table 78: API History

| Release | Modification |
|------------------------|-------------------------|
| Cisco CMX Release 10.4 | This API is introduced. |

GET: Children Superzone IDs of Hierarchy Element

Description

The call retrieves children superzone IDs of an heterarchy element and, under them, the counts of all the nested children elements. The element is identified by the path of the API call (either the full path or the ID of the element- see Add/Update zones or tags for details on obtaining the element id). Specifying a level retrieves only children of that level.

HTTP Method

GET

Resource URI

/api/config/v1/heterarchy/:pathSegments/childrencounts

Requires Basic Auth

N

Parameters

Table 79: Parameter Details

| Name | Required | Default | Type | Location | Description |
|--------------|----------|---------|--------|-------------|--|
| pathSegments | N | — | String | pathReplace | Full path to the element or element ID. |
| validDate | N | — | String | query | Show elements valid from given date (yyyy-mm-dd HH:mm:ss) Allowed values/formats: yyyy-mm-dd HH:mm:ss. |
| level | N | — | String | query | Level name (SUPERZONE, FLOOR, AP, POI, or ZONE) Allowed values/formats: SUPERZONE FLOOR AP ZONE POI. |

Content Type

application/json

API History

Table 80: API History

| Release | Modification |
|------------------------|-------------------------|
| Cisco CMX Release 10.4 | This API is introduced. |



Connect

- [Operations to query visitor user session data, on page 128](#)

Operations to query visitor user session data

GET: Query User Sessions

Description

Query user session data based on the filter criteria. The results are sorted by last login time in descending order. The search can be performed on MAC addresses, last session time, status, and any or all fields. The query is paged using index and count parameters with maximum size in 1000. The returned JSON object includes the number of records returned and next index to query if more. You can also download the queried result in CSV file with URL `/api/connect/v1/clients/export`. The export query does not have maximum size limit.

HTTP Method

GET

Resource URI

`/api/connect/v1/clients`

Requires OAuth

N

Parameters

Table 81: Parameter Details

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|--|
| start | N | — | String | query | Session start time based on last login time in UTC epoch format. Use the Epoch Converter. https://www.epochconverter.com/ |
| end | N | — | String | query | Session end time based on last login time in UTC epoch format. Use the Epoch Converter. https://www.epochconverter.com/ |
| index | N | — | String | query | Starting index of the query based on 0. |
| count | N | — | String | query | Number of records to query with the limit of 1000 at maximum. |
| status | N | — | String | query | Status of the users. Allowed: all,active. |

| Name | Required | Default | Type | Location | Description |
|----------|----------|---------|--------|----------|---|
| authtype | N | — | String | query | Authentication type used by the user. Allowed values/formats: registration, SMS, social. |
| mac | N | — | String | query | MAC address in 00:11:22:33:44:55:66 format. If MAC address is used, all other parameters will be ignored. |
| device | N | — | String | query | Type of user's device. |
| os | N | — | String | query | Operating system of user's device. |
| language | N | — | String | query | Language served to the user. It can search by full language name or two-letter language code. |
| all | N | — | String | query | The search applies to all fields. |

Content Type

application/json

Sample Input (JSON)

```
10.122.141.178/api/connect/v1/clients?start=1534108572&end=2534108572
```

Sample Output (JSON)

```
{
  "nextIndex": 0,
  "timeZoneOffset": -14400000,
  "queryRecordCount": 1000,
  "timeZone": "Eastern Standard Time",
  "records": [],
  "returnRecordCount": 0
}
```




Location

- [RFID Tags Information API](#), on page 132
- [Zone Count Poll API](#), on page 140
- [Active Clients V3 API](#), on page 142
- [Interferers API](#), on page 147
- [Northbound notification types and attributes API](#), on page 149
- [Rogue Clients API](#), on page 152
- [Rogue APs API](#), on page 178
- [Clients History API](#), on page 212
- [BLE-Tags Location and Information API](#), on page 223

RFID Tags Information API

GET: RFID Tag by MAC Address

Description

This API returns an RFID tag by its MAC address.

HTTP Method

GET

Resource URI

/api/location/v1/tags/:macaddress

Requires OAuth

N

Parameters

Table 82: Parameter Details

| Name | Required | Default | Type | Location | Description |
|------------|----------|---------|--------|-------------|-----------------------|
| macaddress | Y | — | String | pathReplace | RFID Tag MAC address. |

Content Type

application/json

Sample Output

http://10.68.40.131/api/location/v1/tags/00:18:8e:28:24:26

```
{
  "macAddress": "00:18:8e:28:24:26",
  "mapInfo": {
    "mapHierarchyString": "Singapore>SINGAPORE UE BIZHUB EAST
(SNG11)>SNG11-5F1>SingZone",
    "floorRefId": "739764660256899136",
    "floorDimension": {
      "length": 118.11024,
      "width": 184.05511,
      "height": 9.84252,
      "offsetX": 0,
      "offsetY": 0,
      "unit": "FEET"
    },
    "image": {
      "imageName": "domain_0_1380690706964.png",

```



```
        "zoomLevel": 4,
        "width": 1440,
        "height": 900,
        "size": 1440,
        "maxResolution": 8,
        "colorDepth": 8
    },
    },
    "mapCoordinate": {
        "x": 108.84515,
        "y": 68.62626,
        "z": 0,
        "unit": "FEET"
    },
    "currentlyTracked": true,
    "confidenceFactor": 72,
    "statistics": {
        "currentServerTime": "2016-06-16T02:20:42.974+0800",
        "firstLocatedTime": "1970-01-01T07:30:00.000+0730",
        "lastLocatedTime": "2016-06-16T02:20:39.336+0800",
        "maxDetectedRssi": {
            "apMacAddress": "64:f6:9d:2a:05:00",
            "band": "IEEE_802_11_B",
            "slot": 0,
            "rssi": -58,
            "antennaIndex": 0,
            "lastHeardInSeconds": 1
        }
    },
    },
    "historyLogReason": null,
    "geoCoordinate": {
        "latitude": 1.3347778969996247,
        "longitude": 103.96366325767761,
        "unit": "DEGREES"
    },
    },
    "networkStatus": "ACTIVE",
    "changedOn": 1466014839336,
    "telemetryList": null,
    "batteryInfo": {
        "tolerance": 70,
        "percentRemaining": 100,
        "daysRemaining": 0,
        "batteryAge": 0,
        "lastReceivedTime": "2016-06-09T06:38:29.748+0800",
        "lastReceivedSeqNum": 2221
    },
    },
    "vendorData": {
        "vendorId": 6286,
        "elementId": 0,
        "data": "AAMAAQEABABAQ==",
        "lastReceivedTime": "2016-06-09T06:38:29.748+0800",
        "lastReceivedSeqNum": 2221
    },
    },
    "sortedEmergencyList": null,
    "sortedChokepointList": null,
    "lastBeaconTime": null,
    "lastBeaconSequenceNumber": 2221,
    "manufacturer": "Ekahau"
}
```

GET: Active RFID Tags Count

Description

This API returns active RFID tags count.

HTTP Method

GET

Resource URI

/api/location/v1/tags/count

Requires OAuth

N

Parameters

None.

Content Type

application/json

Sample Output

```
{
  "deviceType": "Tag",
  "deviceQueryString": null,
  "count": 8
}
```

GET: All Tags

Description

This API returns all tags.

HTTP Method

GET

Resource URI

/api/location/v1/tags

Requires OAuth

N

Parameters

None.

Content Type

application/json

Sample Output (JSON)

```
[
  {
    "macAddress": "98:07:2d:2a:13:f0",
    "mapInfo": {
      "mapHierarchyString": "Nortech Campus>Nortech-1>1st Floor>Tm",
      "floorRefId": "727035700041482264",
      "floorDimension": {
        "length": 49.9,
        "width": 81,
        "height": 10,
        "offsetX": 0,
        "offsetY": 0,
        "unit": "FEET"
      },
      "image": {
        "imageName": "domain_0_1461628766707.png",
        "zoomLevel": 4,
        "width": 2008,
        "height": 1097,
        "size": 2008,
        "maxResolution": 8,
        "colorDepth": 8
      }
    },
    "mapCoordinate": {
      "x": 46.621124,
      "y": 43.95517,
      "z": 0,
      "unit": "FEET"
    },
    "currentlyTracked": true,
    "confidenceFactor": 88,
    "locComputeType": "RSSI",
    "statistics": {
      "currentServerTime": "2017-12-04T00:05:41.824-0800",
      "firstLocatedTime": "2017-12-04T00:05:30.305-0800",
      "lastLocatedTime": "2017-12-04T00:05:36.315-0800",
      "maxDetectedRssi": {
        "apMacAddress": "cc:16:7e:32:63:60",
        "band": "IEEE_802_11_B",
        "slot": 0,
        "rssi": -59,
        "antennaIndex": 0,
        "lastHeardInSeconds": 6
      }
    },
    "historyLogReason": null,
    "geoCoordinate": {
      "latitude": 37.42250281440575,
      "longitude": -121.95978545449093,
      "unit": "DEGREES"
    },
    "rawLocation": {
```

```

        "rawX": -999,
        "rawY": -999,
        "unit": "FEET"
    },
    "networkStatus": "ACTIVE",
    "changedOn": 1512374736315,
    "telemetryList": null,
    "batteryInfo": null,
    "vendorData": null,
    "sortedEmergencyList": null,
    "sortedChokepointList": null,
    "lastBeaconTime": null,
    "lastBeaconSequenceNumber": 0,
    "deviceSubtype": "BLE",
    "bleAttributesList": [
        {
            "profileType": "IBEACON",
            "deviceName": "",
            "uuid": "20CAE8A0A9CF11E3A5E20800200C9A66",
            "major": 42,
            "minor": 5104,
            "power": -70,
            "frequency": 0,
            "revision": 0,
            "battery": 0,
            "firmware": null,
            "hardware": null,
            "eddyStoneURL": "",
            "eddyStoneNamespace": "",
            "eddyStoneInstanceid": "",
            "batteryObject": [
                {
                    "sourceIndex": 1,
                    "percentage": 0,
                    "milliVolts": 0
                },
                {
                    "sourceIndex": 2,
                    "percentage": 0,
                    "milliVolts": 0
                },
                {
                    "sourceIndex": 3,
                    "percentage": 0,
                    "milliVolts": 0
                }
            ]
        }
    ],
    "manufacturer": "Texas Instruments"
},
{
    "macAddress": "98:07:2d:2a:11:c0",
    "mapInfo": {
        "mapHierarchyString": "Nortech Campus>Nortech-1>1st Floor>CMX Bar",
        "floorRefId": "727035700041482264",
        "floorDimension": {
            "length": 49.9,
            "width": 81,
            "height": 10,
            "offsetX": 0,
            "offsetY": 0,
            "unit": "FEET"
        }
    },

```

```

    "image": {
      "imageName": "domain_0_1461628766707.png",
      "zoomLevel": 4,
      "width": 2008,
      "height": 1097,
      "size": 2008,
      "maxResolution": 8,
      "colorDepth": 8
    },
    "tagList": [
      "Lobby"
    ]
  },
  "mapCoordinate": {
    "x": 52.03835,
    "y": 23.021484,
    "z": 0,
    "unit": "FEET"
  },
  "currentlyTracked": true,
  "confidenceFactor": 120,
  "locComputeType": "RSSI",
  "statistics": {
    "currentServerTime": "2017-12-04T00:05:41.825-0800",
    "firstLocatedTime": "2017-12-04T00:05:36.306-0800",
    "lastLocatedTime": "2017-12-04T00:05:36.306-0800",
    "maxDetectedRssi": {
      "apMacAddress": "f8:0b:cb:3c:01:80",
      "band": "IEEE_802_11_B",
      "slot": 0,
      "rssi": -68,
      "antennaIndex": 0,
      "lastHeardInSeconds": 1
    }
  },
  "historyLogReason": null,
  "geoCoordinate": {
    "latitude": 37.4224445499256,
    "longitude": -121.9598048699379,
    "unit": "DEGREES"
  },
  "rawLocation": {
    "rawX": -999,
    "rawY": -999,
    "unit": "FEET"
  },
  "networkStatus": "ACTIVE",
  "changedOn": 1512374736306,
  "telemetryList": null,
  "batteryInfo": null,
  "vendorData": null,
  "sortedEmergencyList": null,
  "sortedChokepointList": null,
  "lastBeaconTime": null,
  "lastBeaconSequenceNumber": 0,
  "deviceSubtype": "BLE",
  "bleAttributesList": [
    {
      "profileType": "IBEACON",
      "deviceName": "",
      "uuid": "20CAE8A0A9CF11E3A5E20800200C9A66",
      "major": 42,
      "minor": 4544,
      "power": -70,
    }
  ]
}

```

```

    "frequency": 0,
    "revision": 0,
    "battery": 0,
    "firmware": null,
    "hardware": null,
    "eddyStoneURL": "",
    "eddyStoneNamespace": "",
    "eddyStoneInstanceid": "",
    "batteryObject": [
      {
        "sourceIndex": 1,
        "percentage": 0,
        "milliVolts": 0
      },
      {
        "sourceIndex": 2,
        "percentage": 0,
        "milliVolts": 0
      },
      {
        "sourceIndex": 3,
        "percentage": 0,
        "milliVolts": 0
      }
    ]
  },
  "manufacturer": "Texas Instruments"
}

```

GET: Returns Minimal Tag Information

Description

This API returns all tags with minimal information

HTTP Method

GET

Resource URI

/api/location/v1/tags/summary

Requires Basic Auth

N

Parameters

None.

Content Type

application/json

Sample Output (JSON)

```
[
  {
    "macAddress": "98:07:2d:2a:13:f0",
    "floorRefId": "727035700041482264"
  },
  {
    "macAddress": "00:78:88:e6:21:89",
    "floorRefId": "727035700041482264"
  }
]
```

API History

Table 83: API History

| Release | Modification |
|------------------------|-------------------------|
| Cisco CMX Release 10.4 | This API is introduced. |

Zone Count Poll API

GET: Zone Count with Mac Addresses

Description

This API returns zone count along with macaddresses.

This expects the debug flag turned on in the Zone Count Register API under configuration service `/api/config/v1/zoneCountParams/1`

HTTP Method

GET

Resource URI

`/api/location/v1/clients/count/byzone/detail`

Requires Basic Auth

N

Parameters

Table 84: Parameter Details

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| zoneId | Y | | String | query | zoneId |

Content Type

application/json

API History

Table 85: API History

| Release | Modification |
|------------------------|-------------------------|
| Cisco CMX Release 10.4 | This API is introduced. |

GET: Active Clients Count for all Registered Zones

Description

This API expects that registration of zones has been done using the Zone Count Register API (Configuration service /api/config/v1/zoneCountParams/1)

HTTP Method

GET

Resource URI

/api/location/v1/clients/count/byzone

Requires Basic Auth

N

Parameters

None.

Content Type

application/json

API History

Table 86: API History

| Release | Modification |
|------------------------|-------------------------|
| Cisco CMX Release 10.4 | This API is introduced. |

Active Clients V3 API

GET: Active Clients Count

Description

This API returns active clients count.

This API supports searching by a variety of parameters. If no parameters are given then all active clients are returned.

The API Username is set using the **cmxos apiserver user** command. This will change the username and password just for the Active V3 Clients API.

Here are some examples to illustrate the queries.

Search by IPv4/IPv6: `api/location/v3/clients/count?ipAddress=x.x.x.x`

Search by Mac Address: `api/location/v3/clients/count?macAddress=x:x:x:x`

Search by SSID: `api/location/v3/clients/count?ssid=someSSID`

Search by User Name: `api/location/v3/clients/count?username=someUser`

Search by Manufacturer: `api/location/v3/clients/count?manufacturer=someManufacturer`

Search for Only Associated Clients: `api/location/v3/clients/count?associatedOnly=true`

Search for Only Probing Clients: `api/location/v3/clients/count?probingOnly=true`

Search by Map Hierarchy: `api/location/v3/clients/count?mapHierarchy=someFloorNameMap`

Hierarchy string can be partial string matches but any string used must be an exact match.

HTTP Method

GET

Resource URI

`/api/location/v3/clients/count`

Requires Basic Auth

N

Parameters

Table 87: Parameter Details

| Name | Required | Default | Type | Location | Description |
|-----------|----------|---------|--------|----------|-------------------|
| ipAddress | N | | String | query | Client IP address |

| Name | Required | Default | Type | Location | Description |
|------------------|----------|---------|--------|----------|-----------------------------------|
| macAddress | N | | String | query | Client MAC address |
| mapHierarchy | N | | String | query | Clients with MAP hierarchy string |
| floorId | N | | String | query | Clients on floor ID |
| ssid | N | | String | query | Clients associated on SSID |
| username | N | | String | query | Clients with user name |
| manufacturer | N | | String | query | Clients with manufacturer |
| macAddressSearch | N | | String | query | Clients MAC address search |
| associatedOnly | N | | String | query | Associated only clients |
| probingOnly | N | | String | query | Probing only clients |

Content Type

application/json

Sample Output (JSON)

```
{
  "totalCount": 134,
  "associatedCount": 8,
  "probingCount": 126
}
```

API History

Table 88: API History

| Release | Modification |
|------------------------|-------------------------|
| Cisco CMX Release 10.4 | This API is introduced. |

GET: Active Clients

Description

This API supports searching by a variety of parameters. If no parameters are given then all active clients are returned.

The API Username is set using the **cmxos apiserver user** command. This will change the username and password just for the Active V3 Clients API.

Here are some examples to illustrate the queries.

Search by IPv4/IPv6: `api/location/v3/clients?ipAddress=x.x.x.x`

Search by Mac Address: `api/location/v3/clients?macAddress=x:x:x:x`

Search by SSID: `api/location/v3/clients?ssid=someSSID`

Search by User Name: `api/location/v3/clients?username=someUser`

Search by Manufacturer: `api/location/v3/clients?manufacturer=someManufacturer`

Search for Only Associated Clients: `api/location/v3/clients?associatedOnly=true`

Search for Only Probing Clients: `api/location/v3/clients?probingOnly=true`

Search by Map Hierarchy: `api/location/v3/clients?mapHierarchy=someFloorNameMap`

HTTP Method

GET

Resource URI

`/api/location/v3/clients`

Requires OAuth

N

Parameters

Table 89: Parameter Details

| Name | Required | Default | Type | Location | Description |
|--------------|----------|---------|--------|----------|-----------------------------------|
| ipAddress | N | | String | query | Client IP address |
| macAddress | N | | String | query | Client MAC address |
| mapHierarchy | N | | String | query | Clients with MAP hierarchy string |
| floorRefId | N | | String | query | Clients on floor ID |

| Name | Required | Default | Type | Location | Description |
|------------------|----------|---------|--------|----------|----------------------------|
| ssid | N | | String | query | Clients associated on SSID |
| username | N | | String | query | Clients with user name |
| manufacturer | N | | String | query | Clients with manufacturer |
| macAddressSearch | N | | String | query | Clients MAC address search |
| associatedOnly | N | | String | query | Associated only clients |
| probingOnly | N | | String | query | Probing only clients |

Content Type

application/json

10.22.243.125/api/location/v3/clients?macAddress=b8%3A38%3A61%3Ab1%3Ac8%3Ad0

10.22.243.125/api/location/v3/clients?mapHierarchy=Nortech%20Campus%3ENortech-1%3E1st%20Floor%3ECMX%20Clinic

10.22.243.125/api/location/v3/clients?ssid=cmx

10.22.243.125/api/location/v3/clients?ipAddress=10.22.243.243

10.22.243.125/api/location/v3/clients

Sample Output (JSON)

```
[
  {
    "notificationType": "locationupdate",
    "subscriptionName": "CMX_Api_Server_Notification_1",
    "eventId": 17949623,
    "locationMapHierarchy": "Nortech Campus>Nortech-1>1st Floor",
    "locationCoordinate": {
      "x": 54,
      "y": 0,
      "z": 0,
      "unit": "FEET"
    },
    "geoCoordinate": {
      "latitude": 37.42238047320771,
      "longitude": -121.9598118556593,
      "unit": "DEGREES"
    },
    "confidenceFactor": 40,
    "apMacAddress": "NOT APPLICABLE",
    "associated": false,
    "username": "NOT APPLICABLE",
    "ipAddress": [
      "NOT APPLICABLE"
    ]
  }
]
```

```

    ],
    "ssid": "NOT APPLICABLE",
    "band": "NOT APPLICABLE",
    "floorId": 727035700041482200,
    "floorRefId": null,
    "entity": "WIRELESS_CLIENTS",
    "deviceId": "00:0f:f8:56:2d:98",
    "lastSeen": "2017-11-07T13:54:20.595-0800",
    "tagTelemetryList": null,
    "tagBatteryInfo": null,
    "tagVendorData": null,
    "tagLastBeaconTime": null,
    "tagLastBeaconSequenceNumber": 0,
    "tagManufacturer": null,
    "rawLocation": {
      "rawX": -999,
      "rawY": -999,
      "unit": "FEET"
    },
    "maxDetectedRssi": {
      "apMacAddress": "b8:38:61:b1:c8:d0",
      "band": "IEEE_802_11_B",
      "slot": 2,
      "rssi": -15,
      "antennaIndex": 0,
      "lastHeardInSeconds": 0
    },
    "timestamp": 1510091660595,
    "sourceNotification": "127.0.0.1",
    "sourceNotificationKey": "127.0.0.1,1",
    "notificationTime": "1510091660626"
  }
}
]

```

API History

Table 90: API History

| Release | Modification |
|------------------------|-------------------------|
| Cisco CMX Release 10.4 | This API is introduced. |

Interferers API

GET: Get interferer by macaddress

Description

This API returns an interferer by macaddress

HTTP Method

GET

Resource URI

/api/location/v1/interferers/:macaddress

Requires OAuth

N

Parameters

Table 91: Parameter Details

| Name | Required | Default | Type | Location | Description |
|------------|----------|---------|--------|-------------|-----------------------|
| macaddress | Y | | String | pathReplace | Interferer Macaddress |

Content Type

application/json

GET: Get total number of interferers

Description

This API returns number of interferers

HTTP Method

GET

Resource URI

/api/location/v1/interferers/count

Requires OAuth

N

Parameters

None.

Content Type

application/json

GET: Get all interferers

Description

This API returns all interferers and also supports searching by floor. .

HTTP Method

GET

Resource URI

/api/location/v1/interferers

Requires OAuth

N

Parameters

None.

Content Type

application/json

Content Type

application/json

Usage Guidelines

Search by Floor:

```
http://<cmx-ip-address>/api/location/v1/interferers/floorrefid=<floorrefid>
```

For Example:

```
http://10.0.0.1/api/location/v1/interferers/floorrefid=1
```

Search by Page and Page Number: (As long as there is data you can keep paginating by incrementing the page and the pageSize numbers)

```
http://<cmx-ip-address>/api/location/v1/interferers?page=<pagenumber>&pageSize=<pagesize>
```

For Example:

```
http://10.0.0.1/api/location/v1/interferers/page=1&pageSize=2
```


Northbound notification types and attributes API

GET: Supported Northbound Notifications

Description

This API returns all supported notification types and applicable attributes for the notification rules.

HTTP Method

GET

Resource URI

/api/location/v1/attributes

Requires Basic Auth

N

Content Type

application/json

Sample Output

```
{
  "notifications": [
    {
      "notificationType": "locationupdate",
      "subscriptionName": "asdasdasd",
      "eventId": 1259951,
      "locationMapHierarchy": "Simulator-1212-Campus0>Building1>Floor8>Zone4",
      "locationCoordinate": {
        "x": 65.32642,
        "y": 302.04172,
        "z": 0.0,
        "unit": "FEET"
      },
      "geoCoordinate": {
        "latitude": -999.0,
        "longitude": -999.0,
        "unit": "DEGREES"
      },
      "confidenceFactor": 64.0,
      "apMacAddress": "NOT APPLICABLE",
      "associated": false,
      "username": "NOT APPLICABLE",
      "ipAddress": [
        "NOT APPLICABLE"
      ],
      "ssid": "NOT APPLICABLE",
      "band": "NOT APPLICABLE",
      "floorId": 1721918422,
      "entity": "WIRELESS_CLIENTS",
      "deviceId": "10:00:00:00:0f:5e",
    }
  ]
}
```

```

    "lastSeen":"2017-06-06T13:42:51.798-0700",
    "rawLocation":{
      "rawX":-999.0,
      "rawY":-999.0,
      "unit":"FEET"
    },
    "areaGlobalidList":[
      6343,
      2759,
      2758,
      2757,
      6399,
      6400,
      6289,
      6342
    ],
    "tagVendorData":null,
    "manufacturer":"Private",
    "timestamp":1496781771798
  }
}

```

Output Field Descriptions

Table 92: Output Field Descriptions

| Field | Description |
|------------------------|---|
| Notification Type | What type of notification this output describes (For example, locationupdate) |
| Subscription Name | The name of the notification created in CMX (user provided) |
| Event ID | Unique for notification identification per event |
| Location Map Hierarchy | The Hierarchy string that shows campus, building, floor, and zone (if applicable) |
| Location Coordinate | XY location for the device |
| Geo Coordinate | GPS location for device, if GPS markers are set |
| Confidence Factor | Represents a square box of where the client should be, lower means better location accuracy |
| AP Mac Address | The AP that the client is connected to |
| Associated | is this device Associated or not |
| Username | The username of this Associated client if using 802.11x |
| IP address | If this client is associated, what IP address(es) are assigned to it, can include IPv4 and IPv6 addresses |

| Field | Description |
|---------------------|---|
| SSID | The SSID of the client is Associated |
| Band | 802.11 band the device is it connected to |
| Floor Id | Long value representing hieracrchy, would not use |
| Floor Ref Id | Represents a long for what hierarchy it is on (Floor Id might be rounded if the number is large enough due to a conversion from long to double), only is filled in for location update, recommended for use |
| Entity | What type of device is it, Client (normal devices), RFID Tag (these are devices that send a chirp on an interval), Interferers (Devices that are connected to APs or are APs that aren't on the network controlled by a controller on this CMX) |
| Device Id | MAC address of device |
| Last Seen | Timestamp of packet last received from controller for this device |
| Raw Location | - |
| Area Global Id List | - |
| Tag Vendor Data | For RFID tags, information that was encoded in packets we received like battery life or something like that. |
| Manufacturer | Based on the first half of the MAC address of this device |
| Timestamp | When the notification generated |
| status | Refers to what the status of the device is - IDLE(0), AAA_PENDING(1), AUTHENTICATED(2), ASSOCIATED(3), POWERSAVE(4), DISASSOCIATED(5), TO_BE_DELETED(6), PROBING(7), WAIT_ASSOCIATED(257); |

Table 93: API History

| Release | Modification |
|------------------------|---|
| Cisco CMX Release 10.3 | Output field descriptor Floor Ref Id was introduced. |

Rogue Clients API

GET: Rogue client by Macaddress

Description

This API returns a rogue client by macaddress.

HTTP Method

GET

Resource URI

/api/location/v1/rogueclients/:macaddress

Requires Basic Auth

N

Parameters

Table 94: Parameter Details

| Name | Required | Default | Type | Location | Description |
|------------|----------|---------|--------|-------------|-------------------------|
| macaddress | Y | | String | pathReplace | Rogue Client Macaddress |

Content Type

application/json

Sample Output (JSON)

```
{
  "macAddress": "3c:08:f6:d9:08:a4",
  "mapInfo": {
    "floorRefId": "0"
  },
  "mapCoordinate": {
    "x": 0,
    "y": 0,
    "z": 0,
    "unit": "FEET"
  },
  "currentlyTracked": false,
  "confidenceFactor": 0,
  "locComputeType": "RSSI",
  "statistics": {
    "currentServerTime": "2017-12-19T01:05:09.748-0800",
    "firstLocatedTime": "1969-12-31T16:00:00.000-0800",
    "lastLocatedTime": "1969-12-31T16:00:00.000-0800"
  }
}
```

```

    },
    "historyLogReason": null,
    "geoCoordinate": null,
    "rawLocation": {
      "rawX": -999,
      "rawY": -999,
      "unit": "FEET"
    },
    "networkStatus": "INACTIVE",
    "changedOn": 0,
    "numOfDetectingAPs": 0,
    "bssid": "",
    "containmentLevel": "UNASSIGNED",
    "state": "INITIALIZING",
    "gwMacAddr": null,
    "manufacturer": "Cisco Systems, Inc"
  }
}

```

API History

Table 95: API History

| Release | Modification |
|------------------------|-------------------------|
| Cisco CMX Release 10.4 | This API is introduced. |

GET: Active Rogue Clients Count

Description

This API returns active rogue clients count.

HTTP Method

GET

Resource URI

/api/location/v1/rogueclients/count

Requires Basic Auth

N

Parameters

None.

Content Type

application/json

Sample Output

```
{
  "deviceType": "Rogue_Client",
  "deviceQueryString": null,
  "count": 59
}
```

API History*Table 96: API History*

| Release | Modification |
|------------------------|-------------------------|
| Cisco CMX Release 10.4 | This API is introduced. |

GET: All Rogue Clients

Description

This API returns all rogue clients

HTTP Method

GET

Resource URI

/api/location/v1/rogueclients

Requires Basic Auth

N

Parameters

None.

Content Type

application/json

Sample Output (JSON)

```
[
  {
    "macAddress": "2c:54:2d:ea:dd:a7",
    "mapInfo": {
      "mapHierarchyString": "Nortech Campus>Nortech-1>1st Floor",
      "floorRefId": "727035700041482264",
      "floorDimension": {
        "length": 49.9,
        "width": 81,
        "height": 10,
        "offsetX": 0,
        "offsetY": 0,
      }
    }
  }
]
```

```

        "unit": "FEET"
    },
    "image": {
        "imageName": "domain_0_1461628766707.png",
        "zoomLevel": 4,
        "width": 2008,
        "height": 1097,
        "size": 2008,
        "maxResolution": 8,
        "colorDepth": 8
    }
},
"mapCoordinate": {
    "x": 0,
    "y": 0,
    "z": 0,
    "unit": "FEET"
},
"currentlyTracked": true,
"confidenceFactor": 104,
"locComputeType": "RSSI",
"statistics": {
    "currentServerTime": "2017-11-30T23:05:55.408-0800",
    "firstLocatedTime": "2017-11-30T21:48:33.849-0800",
    "lastLocatedTime": "2017-11-30T23:03:23.798-0800",
    "maxDetectedRssi": {
        "apMacAddress": "cc:16:7e:32:76:b0",
        "band": "IEEE_802_11_B",
        "slot": 0,
        "rssi": -128,
        "antennaIndex": 0,
        "lastHeardInSeconds": 2
    }
},
"historyLogReason": "DISTANCE_CHANGE",
"geoCoordinate": {
    "latitude": 37.42238045575941,
    "longitude": -121.95961771207679,
    "unit": "DEGREES"
},
"rawLocation": {
    "rawX": -999,
    "rawY": -999,
    "unit": "FEET"
},
"networkStatus": "ACTIVE",
"changedOn": 1512111803798,
"numOfDetectingAPs": 0,
"bssid": "",
"containmentLevel": "UNASSIGNED",
"state": "INITIALIZING",
"gwMacAddr": null,
"manufacturer": "Cisco Systems, Inc"
},
{
    "macAddress": "00:1f:6c:7a:65:38",
    "mapInfo": {
        "mapHierarchyString": "Nortech Campus>Nortech-1>1st Floor>CMX Bar",
        "floorRefId": "727035700041482264",
        "floorDimension": {
            "length": 49.9,
            "width": 81,
            "height": 10,
            "offsetX": 0,

```

```

        "offsetY": 0,
        "unit": "FEET"
    },
    "image": {
        "imageName": "domain_0_1461628766707.png",
        "zoomLevel": 4,
        "width": 2008,
        "height": 1097,
        "size": 2008,
        "maxResolution": 8,
        "colorDepth": 8
    },
    "tagList": [
        "Lobby"
    ]
},
"mapCoordinate": {
    "x": 50.32218,
    "y": 23.589972,
    "z": 0,
    "unit": "FEET"
},
"currentlyTracked": true,
"confidenceFactor": 120,
"locComputeType": "RSSI",
"statistics": {
    "currentServerTime": "2017-11-30T23:05:55.408-0800",
    "firstLocatedTime": "2017-11-30T23:05:50.344-0800",
    "lastLocatedTime": "2017-11-30T23:05:50.344-0800",
    "maxDetectedRssi": {
        "apMacAddress": "f8:0b:cb:3c:01:80",
        "band": "IEEE_802_11_A",
        "slot": 0,
        "rssi": -84,
        "antennaIndex": 0,
        "lastHeardInSeconds": 1
    }
},
"historyLogReason": "NETWORK_STATUS_CHANGE",
"geoCoordinate": {
    "latitude": 37.422446131682264,
    "longitude": -121.95979870153643,
    "unit": "DEGREES"
},
"rawLocation": {
    "rawX": -999,
    "rawY": -999,
    "unit": "FEET"
},
"networkStatus": "ACTIVE",
"changedOn": 1512111950344,
"numOfDetectingAPs": 1,
"bssid": "58:ac:78:df:97:94",
"containmentLevel": "UNASSIGNED",
"state": "ALERT",
"gwMacAddr": null,
"manufacturer": "Cisco Systems, Inc"
}
]

```


API History*Table 97: API History*

| Release | Modification |
|------------------------|-------------------------|
| Cisco CMX Release 10.4 | This API is introduced. |

GET: History of Rogue clients by MAC Address**Description**

This API returns a history of rogue clients by MAC Address. If date is unspecified, the current date is used, and activity history of the rogue client from 00:00 AM to current time(time of query) is returned. If date is specified, the activity history of the specified rogue client on the date is returned.

HTTP Method

GET

Resource URI

/api/location/v1/history/rogueclients/:macaddress

Requires OAuth

N

Parameters*Table 98: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|------------|----------|--|--------|-------------|-------------------------------|
| macaddress | Y | | String | pathReplace | Rogue Client Macaddress |
| Date | N | If unspecified, the current date is used. So rogue clients active from midnight to current time(time of query) | String | query | Date in format of yyyy/mm/dd. |

Content Type

application/json

Sample Output (JSON)

```
[
  {
    "macAddress": "00:1f:6c:7a:65:38",
    "mapInfo": {
      "mapHierarchyString": "Nortech Campus>Nortech-1>1st Floor>CMX Bar",
      "mapHierarchyDetails": {
        "campus": "Nortech Campus",
        "building": "Nortech-1",
        "floor": "1st Floor",
        "floorAesUid": 727035700041482200,
        "zones": "CMX Bar"
      }
    },
    "mapCoordinate": {
      "x": 50.32218,
      "y": 23.589972,
      "z": 0,
      "unit": "FEET"
    },
    "currentlyTracked": false,
    "confidenceFactor": 120,
    "locComputeType": null,
    "statistics": {
      "currentServerTime": "2017-11-30T23:15:11.670-0800",
      "firstLocatedTime": "2017-11-30T22:09:20.313-0800",
      "lastLocatedTime": "2017-11-30T22:09:20.313-0800"
    },
    "historyLogReason": "NETWORK_STATUS_CHANGE",
    "geoCoordinate": {
      "latitude": 37.422446131682264,
      "longitude": -121.95979870153643,
      "unit": "DEGREES"
    },
    "rawLocation": null,
    "networkStatus": "INACTIVE",
    "changedOn": 1512108562319,
    "numOfDetectingAPs": 0,
    "bssid": null,
    "containmentLevel": null,
    "state": null,
    "gwMacAddr": null,
    "manufacturer": "Cisco Systems, Inc"
  },
  {
    "macAddress": "00:1f:6c:7a:65:38",
    "mapInfo": {
      "mapHierarchyString": "Nortech Campus>Nortech-1>1st Floor>CMX Bar",
      "mapHierarchyDetails": {
        "campus": "Nortech Campus",
        "building": "Nortech-1",
        "floor": "1st Floor",
        "floorAesUid": 727035700041482200,
        "zones": "CMX Bar"
      }
    },
    "mapCoordinate": {
      "x": 52.333843,
      "y": 23.049349,
      "z": 0,
      "unit": "FEET"
    },
    "currentlyTracked": false,
  }
]
```

```

"confidenceFactor": 120,
"locComputeType": null,
"statistics": {
  "currentServerTime": "2017-11-30T23:15:11.671-0800",
  "firstLocatedTime": "2017-11-30T21:03:22.317-0800",
  "lastLocatedTime": "2017-11-30T21:03:22.317-0800"
},
"historyLogReason": "NETWORK_STATUS_CHANGE",
"geoCoordinate": {
  "latitude": 37.42244462757822,
  "longitude": -121.95980593239442,
  "unit": "DEGREES"
},
"rawLocation": null,
"networkStatus": "INACTIVE",
"changedOn": 1512104604340,
"numOfDetectingAPs": 0,
"bssid": null,
"containmentLevel": null,
"state": null,
"gwMacAddr": null,
"manufacturer": "Cisco Systems, Inc"
},
{
  "macAddress": "00:1f:6c:7a:65:38",
  "mapInfo": {
    "mapHierarchyString": "Nortech Campus>Nortech-1>1st Floor>CMX Bar",
    "mapHierarchyDetails": {
      "campus": "Nortech Campus",
      "building": "Nortech-1",
      "floor": "1st Floor",
      "floorAesUid": 727035700041482200,
      "zones": "CMX Bar"
    }
  },
  "mapCoordinate": {
    "x": 52.333843,
    "y": 23.049349,
    "z": 0,
    "unit": "FEET"
  },
  "currentlyTracked": false,
  "confidenceFactor": 120,
  "locComputeType": null,
  "statistics": {
    "currentServerTime": "2017-11-30T23:15:11.671-0800",
    "firstLocatedTime": "2017-11-30T20:44:30.815-0800",
    "lastLocatedTime": "2017-11-30T20:44:30.815-0800"
  },
  "historyLogReason": "NETWORK_STATUS_CHANGE",
  "geoCoordinate": {
    "latitude": 37.42244462757822,
    "longitude": -121.95980593239442,
    "unit": "DEGREES"
  },
  "rawLocation": null,
  "networkStatus": "INACTIVE",
  "changedOn": 1512103478845,
  "numOfDetectingAPs": 0,
  "bssid": null,
  "containmentLevel": null,
  "state": null,
  "gwMacAddr": null,
  "manufacturer": "Cisco Systems, Inc"
}

```

```

},
{
  "macAddress": "00:1f:6c:7a:65:38",
  "mapInfo": {
    "mapHierarchyString": "Nortech Campus>Nortech-1>1st Floor>CMX Bar",
    "mapHierarchyDetails": {
      "campus": "Nortech Campus",
      "building": "Nortech-1",
      "floor": "1st Floor",
      "floorAesUid": 727035700041482200,
      "zones": "CMX Bar"
    }
  },
  "mapCoordinate": {
    "x": 66.60833,
    "y": 41.13821,
    "z": 0,
    "unit": "FEET"
  },
  "currentlyTracked": false,
  "confidenceFactor": 96,
  "locComputeType": null,
  "statistics": {
    "currentServerTime": "2017-11-30T23:15:11.672-0800",
    "firstLocatedTime": "2017-11-30T15:35:49.316-0800",
    "lastLocatedTime": "2017-11-30T15:35:49.316-0800"
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    "unit": "DEGREES"
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  "rawLocation": null,
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  "manufacturer": "Cisco Systems, Inc"
},
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    "mapHierarchyDetails": {
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      "building": "Nortech-1",
      "floor": "1st Floor",
      "floorAesUid": 727035700041482200,
      "zones": "CMX Bar"
    }
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    "y": 23.589972,
    "z": 0,
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},
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      "building": "Nortech-1",
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    "y": 23.829533,
    "z": 0,
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  "confidenceFactor": 120,
  "locComputeType": null,
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  "state": null,
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    "floorAesUid": 727035700041482200,
    "zones": "CMX Bar"
  }
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  "y": 23.589972,
  "z": 0,
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  "unit": "DEGREES"
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    "mapHierarchyDetails": {
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      "building": "Nortech-1",
      "floor": "1st Floor",
      "floorAesUid": 727035700041482200,
      "zones": "CMX Bar"
    }
  },
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    "y": 23.589972,
    "z": 0,
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        "mapHierarchyDetails": {
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            "building": "Nortech-1",
            "floor": "1st Floor",
            "floorAesUid": 727035700041482200,
            "zones": "CMX Bar"
        }
    },
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        "y": 23.589972,
        "z": 0,
        "unit": "FEET"
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      "zones": "CMX Bar"
    }
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    "y": 23.589972,
    "z": 0,
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      "building": "Nortech-1",
      "floor": "1st Floor",
      "floorAesUid": 727035700041482200,
      "zones": "CMX Bar"
    }
  },
  "mapCoordinate": {
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    "y": 23.049349,
    "z": 0,
    "unit": "FEET"
  },
  "currentlyTracked": false,
  "confidenceFactor": 120,
  "locComputeType": null,
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    "lastLocatedTime": "2017-11-30T11:20:12.326-0800"
  }
}

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      "y": 23.049349,
      "z": 0,
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    "confidenceFactor": 120,
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        "zones": "CMX Bar"
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},
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},
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            "building": "Nortech-1",
            "floor": "1st Floor",
            "floorAesUid": 727035700041482200,
            "zones": "CMX Bar"
        }
    },
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        "y": 23.829533,
        "z": 0,
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        "floor": "1st Floor",
        "floorAesUid": 727035700041482200,
        "zones": "CMX Bar"
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        "building": "Nortech-1",

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        "zones": "Tm"
    }
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"containmentLevel": null,
"state": null,
"gwMacAddr": null,
"manufacturer": "Cisco Systems, Inc"
},
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            "building": "Nortech-1",
            "floor": "1st Floor",
            "floorAesUid": 727035700041482200,
            "zones": "CMX Bar"
        }
    },
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        "y": 23.589972,
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    "confidenceFactor": 120,
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    "containmentLevel": null,
    "state": null,
    "gwMacAddr": null,
    "manufacturer": "Cisco Systems, Inc"
},
{
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            "building": "Nortech-1",
            "floor": "1st Floor",
            "floorAesUid": 727035700041482200,
            "zones": "CMX Bar"
        }
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        "y": 23.049349,
        "z": 0,
        "unit": "FEET"
    },
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    "confidenceFactor": 120,
    "locComputeType": null,
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    "containmentLevel": null,
    "state": null,
    "gwMacAddr": null,
    "manufacturer": "Cisco Systems, Inc"
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            "building": "Nortech-1",
            "floor": "1st Floor",
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},
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    },
    "historyLogReason": "DISTANCE_CHANGE",
    "geoCoordinate": {
        "latitude": 37.42244462757822,
        "longitude": -121.95980593239442,
        "unit": "DEGREES"
    }
}

```

```

    },
    "rawLocation": null,
    "networkStatus": "INACTIVE",
    "changedOn": 1512046411808,
    "numOfDetectingAPs": 0,
    "bssid": null,
    "containmentLevel": null,
    "state": null,
    "gwMacAddr": null,
    "manufacturer": "Cisco Systems, Inc"
  },
  {
    "macAddress": "00:1f:6c:7a:65:38",
    "mapInfo": {
      "mapHierarchyString": "Nortech Campus>Nortech-1>1st Floor>CMX Clinic",
      "mapHierarchyDetails": {
        "campus": "Nortech Campus",
        "building": "Nortech-1",
        "floor": "1st Floor",
        "floorAesUid": 727035700041482200,
        "zones": "CMX Clinic"
      }
    },
    "mapCoordinate": {
      "x": 21.311752,
      "y": 17.200161,
      "z": 0,
      "unit": "FEET"
    },
    "currentlyTracked": false,
    "confidenceFactor": 104,
    "locComputeType": null,
    "statistics": {
      "currentServerTime": "2017-11-30T23:15:11.682-0800",
      "firstLocatedTime": "2017-11-30T04:49:48.864-0800",
      "lastLocatedTime": "2017-11-30T04:49:48.864-0800"
    },
    "historyLogReason": "DISTANCE_CHANGE",
    "geoCoordinate": {
      "latitude": 37.42242833708961,
      "longitude": -121.9596943831753,
      "unit": "DEGREES"
    },
    "rawLocation": null,
    "networkStatus": "INACTIVE",
    "changedOn": 1512046191266,
    "numOfDetectingAPs": 0,
    "bssid": null,
    "containmentLevel": null,
    "state": null,
    "gwMacAddr": null,
    "manufacturer": "Cisco Systems, Inc"
  },
  {
    "macAddress": "00:1f:6c:7a:65:38",
    "mapInfo": {
      "mapHierarchyString": "Nortech Campus>Nortech-1>1st Floor",
      "mapHierarchyDetails": {
        "campus": "Nortech Campus",
        "building": "Nortech-1",
        "floor": "1st Floor",
        "floorAesUid": 727035700041482200,
        "zones": ""
      }
    }
  }

```

```

    },
    "mapCoordinate": {
      "x": 67.5,
      "y": 49.9,
      "z": 0,
      "unit": "FEET"
    },
    "currentlyTracked": false,
    "confidenceFactor": 80,
    "locComputeType": null,
    "statistics": {
      "currentServerTime": "2017-11-30T23:15:11.682-0800",
      "firstLocatedTime": "2017-11-30T04:02:20.813-0800",
      "lastLocatedTime": "2017-11-30T04:02:20.813-0800"
    },
    "historyLogReason": "NETWORK_STATUS_CHANGE",
    "geoCoordinate": {
      "latitude": 37.422519367829736,
      "longitude": -121.95986053657813,
      "unit": "DEGREES"
    },
    "rawLocation": null,
    "networkStatus": "INACTIVE",
    "changedOn": 1512043342823,
    "numOfDetectingAPs": 0,
    "bssid": null,
    "containmentLevel": null,
    "state": null,
    "gwMacAddr": null,
    "manufacturer": "Cisco Systems, Inc"
  },
  {
    "macAddress": "00:1f:6c:7a:65:38",
    "mapInfo": {
      "mapHierarchyString": "Nortech Campus>Nortech-1>1st Floor>CMX Bar",
      "mapHierarchyDetails": {
        "campus": "Nortech Campus",
        "building": "Nortech-1",
        "floor": "1st Floor",
        "floorAesUid": 727035700041482200,
        "zones": "CMX Bar"
      }
    },
    "mapCoordinate": {
      "x": 50.32218,
      "y": 23.589972,
      "z": 0,
      "unit": "FEET"
    },
    "currentlyTracked": false,
    "confidenceFactor": 120,
    "locComputeType": null,
    "statistics": {
      "currentServerTime": "2017-11-30T23:15:11.683-0800",
      "firstLocatedTime": "2017-11-30T03:36:40.310-0800",
      "lastLocatedTime": "2017-11-30T03:36:40.310-0800"
    },
    "historyLogReason": "NETWORK_STATUS_CHANGE",
    "geoCoordinate": {
      "latitude": 37.422446131682264,
      "longitude": -121.95979870153643,
      "unit": "DEGREES"
    },
    "rawLocation": null,
  }
}

```



```

    "networkStatus": "INACTIVE",
    "changedOn": 1512041802315,
    "numOfDetectingAPs": 0,
    "bssid": null,
    "containmentLevel": null,
    "state": null,
    "gwMacAddr": null,
    "manufacturer": "Cisco Systems, Inc"
  },
  {
    "macAddress": "00:1f:6c:7a:65:38",
    "mapInfo": {
      "mapHierarchyString": "Nortech Campus>Nortech-1>1st Floor>Tm",
      "mapHierarchyDetails": {
        "campus": "Nortech Campus",
        "building": "Nortech-1",
        "floor": "1st Floor",
        "floorAesUid": 727035700041482200,
        "zones": "Tm"
      }
    },
    "mapCoordinate": {
      "x": 31.251575,
      "y": 25.986582,
      "z": 0,
      "unit": "FEET"
    },
    "currentlyTracked": false,
    "confidenceFactor": 88,
    "locComputeType": null,
    "statistics": {
      "currentServerTime": "2017-11-30T23:15:11.683-0800",
      "firstLocatedTime": "2017-11-30T03:12:30.305-0800",
      "lastLocatedTime": "2017-11-30T03:13:08.856-0800"
    },
    "historyLogReason": "DISTANCE_CHANGE",
    "geoCoordinate": {
      "latitude": 37.42245279617778,
      "longitude": -121.95973014487545,
      "unit": "DEGREES"
    },
    "rawLocation": null,
    "networkStatus": "INACTIVE",
    "changedOn": 1512040390900,
    "numOfDetectingAPs": 0,
    "bssid": null,
    "containmentLevel": null,
    "state": null,
    "gwMacAddr": null,
    "manufacturer": "Cisco Systems, Inc"
  },
  {
    "macAddress": "00:1f:6c:7a:65:38",
    "mapInfo": {
      "mapHierarchyString": "Nortech Campus>Nortech-1>1st Floor>CMX Bar",
      "mapHierarchyDetails": {
        "campus": "Nortech Campus",
        "building": "Nortech-1",
        "floor": "1st Floor",
        "floorAesUid": 727035700041482200,
        "zones": "CMX Bar"
      }
    },
    "mapCoordinate": {

```

```

        "x": 52.333843,
        "y": 23.049349,
        "z": 0,
        "unit": "FEET"
    },
    "currentlyTracked": false,
    "confidenceFactor": 120,
    "locComputeType": null,
    "statistics": {
        "currentServerTime": "2017-11-30T23:15:11.684-0800",
        "firstLocatedTime": "2017-11-30T02:31:39.825-0800",
        "lastLocatedTime": "2017-11-30T02:31:39.825-0800"
    },
    "historyLogReason": "NETWORK_STATUS_CHANGE",
    "geoCoordinate": {
        "latitude": 37.42244462757822,
        "longitude": -121.95980593239442,
        "unit": "DEGREES"
    },
    "rawLocation": null,
    "networkStatus": "INACTIVE",
    "changedOn": 1512037901814,
    "numOfDetectingAPs": 0,
    "bssid": null,
    "containmentLevel": null,
    "state": null,
    "gwMacAddr": null,
    "manufacturer": "Cisco Systems, Inc"
},
{
    "macAddress": "00:1f:6c:7a:65:38",
    "mapInfo": {
        "mapHierarchyString": "Nortech Campus>Nortech-1>1st Floor>CMX Bar",
        "mapHierarchyDetails": {
            "campus": "Nortech Campus",
            "building": "Nortech-1",
            "floor": "1st Floor",
            "floorAesUid": 727035700041482200,
            "zones": "CMX Bar"
        }
    },
    "mapCoordinate": {
        "x": 48.476727,
        "y": 27.811598,
        "z": 0,
        "unit": "FEET"
    },
    "currentlyTracked": false,
    "confidenceFactor": 80,
    "locComputeType": null,
    "statistics": {
        "currentServerTime": "2017-11-30T23:15:11.684-0800",
        "firstLocatedTime": "2017-11-30T01:32:38.423-0800",
        "lastLocatedTime": "2017-11-30T01:32:38.423-0800"
    },
    "historyLogReason": "NETWORK_STATUS_CHANGE",
    "geoCoordinate": {
        "latitude": 37.42245788144175,
        "longitude": -121.95979207893012,
        "unit": "DEGREES"
    },
    "rawLocation": null,
    "networkStatus": "INACTIVE",
    "changedOn": 1512034360532,

```

```

    "numOfDetectingAPs": 0,
    "bssid": null,
    "containmentLevel": null,
    "state": null,
    "gwMacAddr": null,
    "manufacturer": "Cisco Systems, Inc"
  },
  {
    "macAddress": "00:1f:6c:7a:65:38",
    "mapInfo": {
      "mapHierarchyString": "Nortech Campus>Nortech-1>1st Floor>CMX Bar",
      "mapHierarchyDetails": {
        "campus": "Nortech Campus",
        "building": "Nortech-1",
        "floor": "1st Floor",
        "floorAesUid": 727035700041482200,
        "zones": "CMX Bar"
      }
    },
    "mapCoordinate": {
      "x": 50.32218,
      "y": 23.589972,
      "z": 0,
      "unit": "FEET"
    },
    "currentlyTracked": false,
    "confidenceFactor": 120,
    "locComputeType": null,
    "statistics": {
      "currentServerTime": "2017-11-30T23:15:11.685-0800",
      "firstLocatedTime": "2017-11-30T01:26:29.802-0800",
      "lastLocatedTime": "2017-11-30T01:26:29.802-0800"
    },
    "historyLogReason": "NETWORK_STATUS_CHANGE",
    "geoCoordinate": {
      "latitude": 37.422446131682264,
      "longitude": -121.95979870153643,
      "unit": "DEGREES"
    },
    "rawLocation": null,
    "networkStatus": "INACTIVE",
    "changedOn": 1512033991809,
    "numOfDetectingAPs": 0,
    "bssid": null,
    "containmentLevel": null,
    "state": null,
    "gwMacAddr": null,
    "manufacturer": "Cisco Systems, Inc"
  },
  {
    "macAddress": "00:1f:6c:7a:65:38",
    "mapInfo": {
      "mapHierarchyString": "Nortech Campus>Nortech-1>1st Floor>CMX Bar",
      "mapHierarchyDetails": {
        "campus": "Nortech Campus",
        "building": "Nortech-1",
        "floor": "1st Floor",
        "floorAesUid": 727035700041482200,
        "zones": "CMX Bar"
      }
    },
    "mapCoordinate": {
      "x": 52.333843,
      "y": 23.049349,

```

```

        "z": 0,
        "unit": "FEET"
    },
    "currentlyTracked": false,
    "confidenceFactor": 120,
    "locComputeType": null,
    "statistics": {
        "currentServerTime": "2017-11-30T23:15:11.685-0800",
        "firstLocatedTime": "2017-11-30T01:18:21.002-0800",
        "lastLocatedTime": "2017-11-30T01:18:21.002-0800"
    },
    "historyLogReason": "NETWORK_STATUS_CHANGE",
    "geoCoordinate": {
        "latitude": 37.42244462757822,
        "longitude": -121.95980593239442,
        "unit": "DEGREES"
    },
    "rawLocation": null,
    "networkStatus": "INACTIVE",
    "changedOn": 1512033503022,
    "numOfDetectingAPs": 0,
    "bssid": null,
    "containmentLevel": null,
    "state": null,
    "gwMacAddr": null,
    "manufacturer": "Cisco Systems, Inc"
},
{
    "macAddress": "00:1f:6c:7a:65:38",
    "mapInfo": {
        "mapHierarchyString": "Nortech Campus>Nortech-1>1st Floor>CMX Bar",
        "mapHierarchyDetails": {
            "campus": "Nortech Campus",
            "building": "Nortech-1",
            "floor": "1st Floor",
            "floorAesUid": 727035700041482200,
            "zones": "CMX Bar"
        }
    },
    "mapCoordinate": {
        "x": 50.32218,
        "y": 23.589972,
        "z": 0,
        "unit": "FEET"
    },
    "currentlyTracked": false,
    "confidenceFactor": 120,
    "locComputeType": null,
    "statistics": {
        "currentServerTime": "2017-11-30T23:15:11.686-0800",
        "firstLocatedTime": "2017-11-30T00:03:38.810-0800",
        "lastLocatedTime": "2017-11-30T00:03:38.810-0800"
    },
    "historyLogReason": "DISTANCE_CHANGE",
    "geoCoordinate": {
        "latitude": 37.422446131682264,
        "longitude": -121.95979870153643,
        "unit": "DEGREES"
    },
    "rawLocation": null,
    "networkStatus": "INACTIVE",
    "changedOn": 1512029020820,
    "numOfDetectingAPs": 0,
    "bssid": null,

```

```
        "containmentLevel": null,  
        "state": null,  
        "gwMacAddr": null,  
        "manufacturer": "Cisco Systems, Inc"  
    }  
]
```

API History

Table 99: API History

| Release | Modification |
|------------------------|-------------------------|
| Cisco CMX Release 10.4 | This API is introduced. |

Rogue APs API

GET: Rogue AP by MAC Address

Description

This API returns rogue AP by macaddress.

HTTP Method

GET

Resource URI

/api/location/v1/rogueaps/:macaddress

10.22.243.125/api/location/v1/rogueaps/70%3A70%3A8b%3A06%3A26%3A6f

Parameters

Table 100: Parameter Details

| Name | Required | Default | Type | Location | Description |
|------------|----------|---------|--------|-------------|---------------------|
| macaddress | Y | Nil | String | pathReplace | Rogue AP Macaddress |

Content Type

application/json

Example Output

```
{
  "macAddress": "70:70:8b:06:26:6f",
  "mapInfo": {
    "mapHierarchyString": "Nortech Campus>Nortech-1>1st Floor>Tm",
    "floorRefId": "727035700041482264",
    "floorDimension": {
      "length": 49.9,
      "width": 81,
      "height": 10,
      "offsetX": 0,
      "offsetY": 0,
      "unit": "FEET"
    },
    "image": {
      "imageName": "domain_0_1461628766707.png",
      "zoomLevel": 4,
      "width": 2008,
      "height": 1097,
      "size": 2008,
      "maxResolution": 8,
      "colorDepth": 8
    }
  }
}
```

```

    }
  },
  "mapCoordinate": {
    "x": 30.707043,
    "y": 15.968904,
    "z": 0,
    "unit": "FEET"
  },
  "currentlyTracked": true,
  "confidenceFactor": 24,
  "locComputeType": "RSSI",
  "statistics": {
    "currentServerTime": "2017-11-30T22:17:48.745-0800",
    "firstLocatedTime": "2017-11-30T10:27:44.506-0800",
    "lastLocatedTime": "2017-11-30T22:17:35.282-0800",
    "maxDetectedRssi": {
      "apMacAddress": "b8:38:61:b1:c8:d0",
      "band": "IEEE_802_11_A",
      "slot": 2,
      "rssi": -47,
      "antennaIndex": 0,
      "lastHeardInSeconds": 7
    }
  },
  "historyLogReason": "DISTANCE_CHANGE",
  "geoCoordinate": {
    "latitude": 37.42242491307808,
    "longitude": -121.95972815802901,
    "unit": "DEGREES"
  },
  "rawLocation": {
    "rawX": -999,
    "rawY": -999,
    "unit": "FEET"
  },
  "networkStatus": "ACTIVE",
  "changedOn": 1512109056295,
  "totalClients": 0,
  "numOfDetectingAPs": 6,
  "type": "AP",
  "containmentLevel": "UNASSIGNED",
  "state": "ALERT",
  "maxDetectedRssi": 0,
  "ssid": "test1234",
  "maxDetectingAPMacAddress": "",
  "maxRssiRadioType": 0,
  "zoneOfImpact": 0,
  "hiddenSSID": 0,
  "lastUpdated": "Thu Nov 30 22:17:36 PST 2017",
  "manufacturer": "Cisco Systems, Inc",
  "detectingControllers": null,
  "clientMacs": null,
  "rogueStChBy": "DEFAULT",
  "rogueClChBy": "DEFAULT",
  "classifiedRSSI": 0,
  "classifiedByAP": "b8:38:61:b1:c8:d0",
  "className": "",
  "classification": "UNCLASSIFIED",
  "tracedWiredRogue": false,
  "switchPortShutdown": false
}

```

API History*Table 101: API History*

| Release | Modification |
|------------------------|-------------------------|
| Cisco CMX Release 10.4 | This API is introduced. |

GET: Active Rogue AP count**Description**

This API returns the count of active rogue APs.

HTTP Method

GET

Resource URI

/api/location/v1/rogueaps/count

Requires OAuth

N

Parameters

None.

Content Type

application/json

Sample Output (JSON)

```
{
  "deviceType": "Rogue_AP",
  "deviceQueryString": null,
  "count": 53
}
```

API History*Table 102: API History*

| Release | Modification |
|------------------------|-------------------------|
| Cisco CMX Release 10.4 | This API is introduced. |

GET: All Active Rogue APs

Description

This API returns all active rogue APs.

HTTP Method

GET

Resource URI

/api/location/v1/roguaps

Requires Basic Auth

N

Parameters

None.

Content Type

application/json

Sample Output

```
[
  {
    "macAddress": "3c:08:f6:d9:08:a4",
    "mapInfo": {
      "mapHierarchyString": "Nortech Campus>Nortech-1>1st Floor>CMX Clinic",
      "floorRefId": "727035700041482264",
      "floorDimension": {
        "length": 49.9,
        "width": 81,
        "height": 10,
        "offsetX": 0,
        "offsetY": 0,
        "unit": "FEET"
      },
      "image": {
        "imageName": "domain_0_1461628766707.png",
        "zoomLevel": 4,
        "width": 2008,
        "height": 1097,
        "size": 2008,
        "maxResolution": 8,
        "colorDepth": 8
      },
      "tagList": [
        "Waiting Room",
        "Pharmacy"
      ]
    },
    "mapCoordinate": {
      "x": 10.805624,
      "y": 15.59294,
    }
  }
]
```

```

        "z": 0,
        "unit": "FEET"
    },
    "currentlyTracked": true,
    "confidenceFactor": 72,
    "locComputeType": "RSSI",
    "statistics": {
        "currentServerTime": "2017-11-30T22:09:15.589-0800",
        "firstLocatedTime": "2017-11-29T15:14:36.041-0800",
        "lastLocatedTime": "2017-11-30T22:09:14.321-0800",
        "maxDetectedRssi": {
            "apMacAddress": "cc:16:7e:80:91:70",
            "band": "IEEE_802_11_B",
            "slot": 0,
            "rssi": -58,
            "antennaIndex": 0,
            "lastHeardInSeconds": 3
        }
    },
    "historyLogReason": "DISTANCE_CHANGE",
    "geoCoordinate": {
        "latitude": 37.42242386020218,
        "longitude": -121.95965660633041,
        "unit": "DEGREES"
    },
    "rawLocation": {
        "rawX": -999,
        "rawY": -999,
        "unit": "FEET"
    },
    "networkStatus": "ACTIVE",
    "changedOn": 1512108554321,
    "totalClients": 0,
    "numOfDetectingAPs": 3,
    "type": "AP",
    "containmentLevel": "UNASSIGNED",
    "state": "ALERT",
    "maxDetectedRssi": 0,
    "ssid": "CMX Guest",
    "maxDetectingAPMacAddress": "",
    "maxRssiRadioType": 0,
    "zoneOfImpact": 0,
    "hiddenSSID": 0,
    "lastUpdated": "Thu Nov 30 22:09:14 PST 2017",
    "manufacturer": "Cisco Systems, Inc",
    "detectingControllers": null,
    "clientMacs": null,
    "rogueStChBy": "DEFAULT",
    "rogueClChBy": "DEFAULT",
    "classifiedRSSI": 0,
    "classifiedByAP": "cc:16:7e:32:63:60",
    "className": "",
    "classification": "UNCLASSIFIED",
    "tracedWiredRogue": false,
    "switchPortShutdown": false
},
{
    "macAddress": "3c:08:f6:d9:08:a2",
    "mapInfo": {
        "mapHierarchyString": "Nortech Campus>Nortech-1>1st Floor",
        "floorRefId": "727035700041482264",
        "floorDimension": {
            "length": 49.9,
            "width": 81,

```

```

        "height": 10,
        "offsetX": 0,
        "offsetY": 0,
        "unit": "FEET"
    },
    "image": {
        "imageName": "domain_0_1461628766707.png",
        "zoomLevel": 4,
        "width": 2008,
        "height": 1097,
        "size": 2008,
        "maxResolution": 8,
        "colorDepth": 8
    }
},
"mapCoordinate": {
    "x": 6.4275756,
    "y": 24.186842,
    "z": 0,
    "unit": "FEET"
},
"currentlyTracked": true,
"confidenceFactor": 80,
"locComputeType": "RSSI",
"statistics": {
    "currentServerTime": "2017-11-30T22:09:15.589-0800",
    "firstLocatedTime": "2017-11-30T22:07:53.710-0800",
    "lastLocatedTime": "2017-11-30T22:09:14.321-0800",
    "maxDetectedRssi": {
        "apMacAddress": "cc:16:7e:32:63:60",
        "band": "IEEE_802_11_B",
        "slot": 0,
        "rssi": -58,
        "antennaIndex": 0,
        "lastHeardInSeconds": 9
    }
},
"historyLogReason": "DISTANCE_CHANGE",
"geoCoordinate": {
    "latitude": 37.42244777881152,
    "longitude": -121.9596408911214,
    "unit": "DEGREES"
},
"rawLocation": {
    "rawX": -999,
    "rawY": -999,
    "unit": "FEET"
},
"networkStatus": "ACTIVE",
"changedOn": 1512108554321,
"totalClients": 1,
"numOfDetectingAPs": 4,
"type": "AP",
"containmentLevel": "UNASSIGNED",
"state": "ALERT",
"maxDetectedRssi": 0,
"ssid": "cmx",
"maxDetectingAPMacAddress": "",
"maxRssiRadioType": 0,
"zoneOfImpact": 0,
"hiddenSSID": 0,
"lastUpdated": "Thu Nov 30 22:09:14 PST 2017",
"manufacturer": "Cisco Systems, Inc",
"detectingControllers": null,

```

```

"clientMacs": null,
"rogueStChBy": "DEFAULT",
"rogueClChBy": "DEFAULT",
"classifiedRSSI": 0,
"classifiedByAP": "cc:16:7e:32:63:60",
"className": "",
"classification": "UNCLASSIFIED",
"tracedWiredRogue": false,
"switchPortShutdown": false
},
{
"macAddress": "70:70:8b:06:26:6f",
"mapInfo": {
"mapHierarchyString": "Nortech Campus>Nortech-1>1st Floor>Tm",
"floorRefId": "727035700041482264",
"floorDimension": {
"length": 49.9,
"width": 81,
"height": 10,
"offsetX": 0,
"offsetY": 0,
"unit": "FEET"
},
"image": {
"imageName": "domain_0_1461628766707.png",
"zoomLevel": 4,
"width": 2008,
"height": 1097,
"size": 2008,
"maxResolution": 8,
"colorDepth": 8
}
},
"mapCoordinate": {
"x": 30.847952,
"y": 16.119947,
"z": 0,
"unit": "FEET"
},
"currentlyTracked": true,
"confidenceFactor": 24,
"locComputeType": "RSSI",
"statistics": {
"currentServerTime": "2017-11-30T22:09:15.589-0800",
"firstLocatedTime": "2017-11-30T10:27:44.506-0800",
"lastLocatedTime": "2017-11-30T22:09:14.321-0800",
"maxDetectedRssi": {
"apMacAddress": "b8:38:61:b1:c8:d0",
"band": "IEEE_802_11_A",
"slot": 2,
"rssi": -47,
"antennaIndex": 0,
"lastHeardInSeconds": 2
}
},
"historyLogReason": "DISTANCE_CHANGE",
"geoCoordinate": {
"latitude": 37.42242533353493,
"longitude": -121.95972866507198,
"unit": "DEGREES"
},
"rawLocation": {
"rawX": -999,
"rawY": -999,

```

```

        "unit": "FEET"
    },
    "networkStatus": "ACTIVE",
    "changedOn": 1512108554321,
    "totalClients": 0,
    "numOfDetectingAPs": 6,
    "type": "AP",
    "containmentLevel": "UNASSIGNED",
    "state": "ALERT",
    "maxDetectedRssi": 0,
    "ssid": "test1234",
    "maxDetectingAPMacAddress": "",
    "maxRssiRadioType": 0,
    "zoneOfImpact": 0,
    "hiddenSSID": 0,
    "lastUpdated": "Thu Nov 30 22:09:14 PST 2017",
    "manufacturer": "Cisco Systems, Inc",
    "detectingControllers": null,
    "clientMacs": null,
    "rogueStChBy": "DEFAULT",
    "rogueClChBy": "DEFAULT",
    "classifiedRSSI": 0,
    "classifiedByAP": "b8:38:61:b1:c8:d0",
    "className": "",
    "classification": "UNCLASSIFIED",
    "tracedWiredRogue": false,
    "switchPortShutdown": false
}
]

```

API History

Table 103: API History

| Release | Modification |
|------------------------|-------------------------|
| Cisco CMX Release 10.4 | This API is introduced. |

GET: History of Rogue APs by MAC Address

Description

This API returns history of rogue APs by macaddress.

HTTP Method

GET

Resource URI

/api/location/v1/history/rogueaps/:macaddress

Requires Basic Auth

N

Parameters

Table 104: Parameter Details

| Name | Required | Default | Type | Location | Description |
|------------|----------|---------|--------|-------------|------------------------------|
| macaddress | Y | Nil | String | pathReplace | Rogue AP Macaddress |
| date | N | Empty | String | query | Date in format of yyyy/mm/dd |

Sample Output

```
[
  {
    "macAddress": "3c:08:f6:d9:08:a4",
    "mapInfo": {
      "mapHierarchyString": "Nortech Campus>Nortech-1>1st Floor>CMX Clinic",
      "mapHierarchyDetails": {
        "campus": "Nortech Campus",
        "building": "Nortech-1",
        "floor": "1st Floor",
        "floorAesUid": 727035700041482200,
        "zones": "CMX Clinic"
      }
    },
    "mapCoordinate": {
      "x": 16.81693,
      "y": 19.066471,
      "z": 0,
      "unit": "FEET"
    },
    "currentlyTracked": false,
    "confidenceFactor": 72,
    "locComputeType": null,
    "statistics": {
      "currentServerTime": "2017-11-30T22:58:26.921-0800",
      "firstLocatedTime": "2017-11-29T15:14:36.041-0800",
      "lastLocatedTime": "2017-11-30T22:28:03.315-0800"
    },
    "historyLogReason": "DISTANCE_CHANGE",
    "geoCoordinate": {
      "latitude": 37.42243353027233,
      "longitude": -121.95967822858528,
      "unit": "DEGREES"
    },
    "rawLocation": null,
    "networkStatus": "INACTIVE",
    "changedOn": 1512109687301,
    "totalClients": 0,
    "numOfDetectingAPs": 0,
    "type": null,
    "containmentLevel": null,
    "state": null,
    "maxDetectedRssi": 0,
    "ssid": null,
    "maxDetectingAPMacAddress": null,
    "maxRssiRadioType": 0,
    "zoneOfImpact": 0,
    "hiddenSSID": 0,
  }
]
```

```

    "lastUpdated": null,
    "manufacturer": "Cisco Systems, Inc",
    "detectingControllers": "10.22.243.211",
    "clientMacs": null,
    "rogueStChBy": null,
    "rogueClChBy": null,
    "classifiedRSSI": 0,
    "classifiedByAP": "",
    "className": "",
    "classification": "UNCLASSIFIED",
    "tracedWiredRogue": false,
    "switchPortShutdown": false
  },
  {
    "macAddress": "3c:08:f6:d9:08:a4",
    "mapInfo": {
      "mapHierarchyString": "Nortech Campus>Nortech-1>1st Floor>CMX Bar",
      "mapHierarchyDetails": {
        "campus": "Nortech Campus",
        "building": "Nortech-1",
        "floor": "1st Floor",
        "floorAesUid": 727035700041482200,
        "zones": "CMX Bar"
      }
    },
    "mapCoordinate": {
      "x": 52.140812,
      "y": 24.24366,
      "z": 0,
      "unit": "FEET"
    },
    "currentlyTracked": false,
    "confidenceFactor": 120,
    "locComputeType": null,
    "statistics": {
      "currentServerTime": "2017-11-30T22:58:26.922-0800",
      "firstLocatedTime": "2017-11-29T15:14:36.041-0800",
      "lastLocatedTime": "2017-11-30T22:26:53.317-0800"
    },
    "historyLogReason": "DISTANCE_CHANGE",
    "geoCoordinate": {
      "latitude": 37.422447951727875,
      "longitude": -121.95980524186929,
      "unit": "DEGREES"
    },
    "rawLocation": null,
    "networkStatus": "INACTIVE",
    "changedOn": 1512109621316,
    "totalClients": 0,
    "numOfDetectingAPs": 0,
    "type": null,
    "containmentLevel": null,
    "state": null,
    "maxDetectedRssi": 0,
    "ssId": null,
    "maxDetectingAPMacAddress": null,
    "maxRssiRadioType": 0,
    "zoneOfImpact": 0,
    "hiddenSSID": 0,
    "lastUpdated": null,
    "manufacturer": "Cisco Systems, Inc",
    "detectingControllers": "10.22.243.211",
    "clientMacs": null,
    "rogueStChBy": null,

```

```

    "rogueClChBy": null,
    "classifiedRSSI": 0,
    "classifiedByAP": "",
    "className": "",
    "classification": "UNCLASSIFIED",
    "tracedWiredRogue": false,
    "switchPortShutdown": false
  },
  {
    "macAddress": "3c:08:f6:d9:08:a4",
    "mapInfo": {
      "mapHierarchyString": "Nortech Campus>Nortech-1>1st Floor>CMX Bar",
      "mapHierarchyDetails": {
        "campus": "Nortech Campus",
        "building": "Nortech-1",
        "floor": "1st Floor",
        "floorAesUid": 727035700041482200,
        "zones": "CMX Bar"
      }
    },
    "mapCoordinate": {
      "x": 58.733418,
      "y": 25.432129,
      "z": 0,
      "unit": "FEET"
    },
    "currentlyTracked": false,
    "confidenceFactor": 112,
    "locComputeType": null,
    "statistics": {
      "currentServerTime": "2017-11-30T22:58:26.923-0800",
      "firstLocatedTime": "2017-11-29T15:14:36.041-0800",
      "lastLocatedTime": "2017-11-30T21:50:33.316-0800"
    },
    "historyLogReason": "DISTANCE_CHANGE",
    "geoCoordinate": {
      "latitude": 37.42245126180904,
      "longitude": -121.95982894739863,
      "unit": "DEGREES"
    },
    "rawLocation": null,
    "networkStatus": "INACTIVE",
    "changedOn": 1512107439304,
    "totalClients": 0,
    "numOfDetectingAPs": 0,
    "type": null,
    "containmentLevel": null,
    "state": null,
    "maxDetectedRssi": 0,
    "ssId": null,
    "maxDetectingAPMacAddress": null,
    "maxRssiRadioType": 0,
    "zoneOfImpact": 0,
    "hiddenSSID": 0,
    "lastUpdated": null,
    "manufacturer": "Cisco Systems, Inc",
    "detectingControllers": "10.22.243.211",
    "clientMacs": null,
    "rogueStChBy": null,
    "rogueClChBy": null,
    "classifiedRSSI": 0,
    "classifiedByAP": "",
    "className": "",
    "classification": "UNCLASSIFIED",
  }

```



```

    "tracedWiredRogue": false,
    "switchPortShutdown": false
  },
  {
    "macAddress": "3c:08:f6:d9:08:a4",
    "mapInfo": {
      "mapHierarchyString": "Nortech Campus>Nortech-1>1st Floor>CMX Bar",
      "mapHierarchyDetails": {
        "campus": "Nortech Campus",
        "building": "Nortech-1",
        "floor": "1st Floor",
        "floorAesUid": 727035700041482200,
        "zones": "CMX Bar"
      }
    },
    "mapCoordinate": {
      "x": 63.668205,
      "y": 29.59488,
      "z": 0,
      "unit": "FEET"
    },
    "currentlyTracked": false,
    "confidenceFactor": 96,
    "locComputeType": null,
    "statistics": {
      "currentServerTime": "2017-11-30T22:58:26.924-0800",
      "firstLocatedTime": "2017-11-29T15:14:36.041-0800",
      "lastLocatedTime": "2017-11-30T20:26:14.829-0800"
    },
    "historyLogReason": "DISTANCE_CHANGE",
    "geoCoordinate": {
      "latitude": 37.42246284988543,
      "longitude": -121.95984670129994,
      "unit": "DEGREES"
    },
    "rawLocation": null,
    "networkStatus": "INACTIVE",
    "changedOn": 1512102376831,
    "totalClients": 0,
    "numOfDetectingAPs": 0,
    "type": null,
    "containmentLevel": null,
    "state": null,
    "maxDetectedRssi": 0,
    "ssid": null,
    "maxDetectingAPMacAddress": null,
    "maxRssiRadioType": 0,
    "zoneOfImpact": 0,
    "hiddenSSID": 0,
    "lastUpdated": null,
    "manufacturer": "Cisco Systems, Inc",
    "detectingControllers": "10.22.243.211",
    "clientMacs": null,
    "rogueStChBy": null,
    "rogueClChBy": null,
    "classifiedRSSI": 0,
    "classifiedByAP": "",
    "className": "",
    "classification": "UNCLASSIFIED",
    "tracedWiredRogue": false,
    "switchPortShutdown": false
  },
  {
    "macAddress": "3c:08:f6:d9:08:a4",

```

```

"mapInfo": {
  "mapHierarchyString": "Nortech Campus>Nortech-1>1st Floor>CMX Clinic",
  "mapHierarchyDetails": {
    "campus": "Nortech Campus",
    "building": "Nortech-1",
    "floor": "1st Floor",
    "floorAesUid": 727035700041482200,
    "zones": "CMX Clinic"
  }
},
"mapCoordinate": {
  "x": 12.266006,
  "y": 12.754823,
  "z": 0,
  "unit": "FEET"
},
"currentlyTracked": false,
"confidenceFactor": 64,
"locComputeType": null,
"statistics": {
  "currentServerTime": "2017-11-30T22:58:26.925-0800",
  "firstLocatedTime": "2017-11-29T15:14:36.041-0800",
  "lastLocatedTime": "2017-11-30T20:03:18.324-0800"
},
"historyLogReason": "DISTANCE_CHANGE",
"geoCoordinate": {
  "latitude": 37.4224159611374,
  "longitude": -121.95966184852433,
  "unit": "DEGREES"
},
"rawLocation": null,
"networkStatus": "INACTIVE",
"changedOn": 1512100998327,
"totalClients": 0,
"numOfDetectingAPs": 0,
"type": null,
"containmentLevel": null,
"state": null,
"maxDetectedRssi": 0,
"ssid": null,
"maxDetectingAPMacAddress": null,
"maxRssiRadioType": 0,
"zoneOfImpact": 0,
"hiddenSSID": 0,
"lastUpdated": null,
"manufacturer": "Cisco Systems, Inc",
"detectingControllers": "10.22.243.211",
"clientMacs": null,
"rogueStChBy": null,
"rogueClChBy": null,
"classifiedRSSI": 0,
"classifiedByAP": "",
"className": "",
"classification": "UNCLASSIFIED",
"tracedWiredRogue": false,
"switchPortShutdown": false
},
{
  "macAddress": "3c:08:f6:d9:08:a4",
  "mapInfo": {
    "mapHierarchyString": "Nortech Campus>Nortech-1>1st Floor>Tm",
    "mapHierarchyDetails": {
      "campus": "Nortech Campus",
      "building": "Nortech-1",

```

```

        "floor": "1st Floor",
        "floorAesUid": 727035700041482200,
        "zones": "Tm"
    }
},
"mapCoordinate": {
    "x": 38.960846,
    "y": 22.958181,
    "z": 0,
    "unit": "FEET"
},
"currentlyTracked": false,
"confidenceFactor": 128,
"locComputeType": null,
"statistics": {
    "currentServerTime": "2017-11-30T22:58:26.926-0800",
    "firstLocatedTime": "2017-11-29T15:14:36.041-0800",
    "lastLocatedTime": "2017-11-30T19:59:03.317-0800"
},
"historyLogReason": "DISTANCE_CHANGE",
"geoCoordinate": {
    "latitude": 37.42244436950427,
    "longitude": -121.95975785284054,
    "unit": "DEGREES"
},
"rawLocation": null,
"networkStatus": "INACTIVE",
"changedOn": 1512100747330,
"totalClients": 0,
"numOfDetectingAPs": 0,
"type": null,
"containmentLevel": null,
"state": null,
"maxDetectedRssi": 0,
"ssid": null,
"maxDetectingAPMacAddress": null,
"maxRssiRadioType": 0,
"zoneOfImpact": 0,
"hiddenSSID": 0,
"lastUpdated": null,
"manufacturer": "Cisco Systems, Inc",
"detectingControllers": "10.22.243.211",
"clientMacs": null,
"rogueStChBy": null,
"rogueClChBy": null,
"classifiedRSSI": 0,
"classifiedByAP": "",
"className": "",
"classification": "UNCLASSIFIED",
"tracedWiredRogue": false,
"switchPortShutdown": false
},
{
    "macAddress": "3c:08:f6:d9:08:a4",
    "mapInfo": {
        "mapHierarchyString": "Nortech Campus>Nortech-1>1st Floor>Tm",
        "mapHierarchyDetails": {
            "campus": "Nortech Campus",
            "building": "Nortech-1",
            "floor": "1st Floor",
            "floorAesUid": 727035700041482200,
            "zones": "Tm"
        }
    }
},

```

```

    "mapCoordinate": {
      "x": 37.168964,
      "y": 32.964314,
      "z": 0,
      "unit": "FEET"
    },
    "currentlyTracked": false,
    "confidenceFactor": 96,
    "locComputeType": null,
    "statistics": {
      "currentServerTime": "2017-11-30T22:58:26.927-0800",
      "firstLocatedTime": "2017-11-29T15:14:36.041-0800",
      "lastLocatedTime": "2017-11-30T19:42:32.950-0800"
    },
    "historyLogReason": "DISTANCE_CHANGE",
    "geoCoordinate": {
      "latitude": 37.42247221971185,
      "longitude": -121.9597514396562,
      "unit": "DEGREES"
    },
    "rawLocation": null,
    "networkStatus": "INACTIVE",
    "changedOn": 1512099754943,
    "totalClients": 0,
    "numOfDetectingAPs": 0,
    "type": null,
    "containmentLevel": null,
    "state": null,
    "maxDetectedRssi": 0,
    "ssid": null,
    "maxDetectingAPMacAddress": null,
    "maxRssiRadioType": 0,
    "zoneOfImpact": 0,
    "hiddenSSID": 0,
    "lastUpdated": null,
    "manufacturer": "Cisco Systems, Inc",
    "detectingControllers": "10.22.243.211",
    "clientMacs": null,
    "rogueStChBy": null,
    "rogueClChBy": null,
    "classifiedRSSI": 0,
    "classifiedByAP": "",
    "className": "",
    "classification": "UNCLASSIFIED",
    "tracedWiredRogue": false,
    "switchPortShutdown": false
  },
  {
    "macAddress": "3c:08:f6:d9:08:a4",
    "mapInfo": {
      "mapHierarchyString": "Nortech Campus>Nortech-1>1st Floor>Tm",
      "mapHierarchyDetails": {
        "campus": "Nortech Campus",
        "building": "Nortech-1",
        "floor": "1st Floor",
        "floorAesUid": 727035700041482200,
        "zones": "Tm"
      }
    },
    "mapCoordinate": {
      "x": 43.08274,
      "y": 23.259438,
      "z": 0,
      "unit": "FEET"
    }
  }

```

```

    },
    "currentlyTracked": false,
    "confidenceFactor": 128,
    "locComputeType": null,
    "statistics": {
      "currentServerTime": "2017-11-30T22:58:26.928-0800",
      "firstLocatedTime": "2017-11-29T15:14:36.041-0800",
      "lastLocatedTime": "2017-11-30T18:57:44.823-0800"
    },
    },
    "historyLogReason": "DISTANCE_CHANGE",
    "geoCoordinate": {
      "latitude": 37.4224452093441,
      "longitude": -121.95977267296477,
      "unit": "DEGREES"
    },
    },
    "rawLocation": null,
    "networkStatus": "INACTIVE",
    "changedOn": 1512097070924,
    "totalClients": 0,
    "numOfDetectingAPs": 0,
    "type": null,
    "containmentLevel": null,
    "state": null,
    "maxDetectedRssi": 0,
    "ssid": null,
    "maxDetectingAPMacAddress": null,
    "maxRssiRadioType": 0,
    "zoneOfImpact": 0,
    "hiddenSSID": 0,
    "lastUpdated": null,
    "manufacturer": "Cisco Systems, Inc",
    "detectingControllers": "10.22.243.211",
    "clientMacs": null,
    "rogueStChBy": null,
    "rogueClChBy": null,
    "classifiedRSSI": 0,
    "classifiedByAP": "",
    "className": "",
    "classification": "UNCLASSIFIED",
    "tracedWiredRogue": false,
    "switchPortShutdown": false
  },
  {
    "macAddress": "3c:08:f6:d9:08:a4",
    "mapInfo": {
      "mapHierarchyString": "Nortech Campus>Nortech-1>1st Floor>CMX Clinic",
      "mapHierarchyDetails": {
        "campus": "Nortech Campus",
        "building": "Nortech-1",
        "floor": "1st Floor",
        "floorAesUid": 727035700041482200,
        "zones": "CMX Clinic"
      }
    },
    },
    "mapCoordinate": {
      "x": 16.045467,
      "y": 17.270725,
      "z": 0,
      "unit": "FEET"
    },
    },
    "currentlyTracked": false,
    "confidenceFactor": 72,
    "locComputeType": null,
    "statistics": {

```

```

        "currentServerTime": "2017-11-30T22:58:26.928-0800",
        "firstLocatedTime": "2017-11-29T15:14:36.041-0800",
        "lastLocatedTime": "2017-11-30T18:09:46.752-0800"
    },
    "historyLogReason": "DISTANCE_CHANGE",
    "geoCoordinate": {
        "latitude": 37.422428531794594,
        "longitude": -121.95967544976139,
        "unit": "DEGREES"
    },
    "rawLocation": null,
    "networkStatus": "INACTIVE",
    "changedOn": 1512094186758,
    "totalClients": 0,
    "numOfDetectingAPs": 0,
    "type": null,
    "containmentLevel": null,
    "state": null,
    "maxDetectedRssi": 0,
    "ssid": null,
    "maxDetectingAPMacAddress": null,
    "maxRssiRadioType": 0,
    "zoneOfImpact": 0,
    "hiddenSSID": 0,
    "lastUpdated": null,
    "manufacturer": "Cisco Systems, Inc",
    "detectingControllers": "10.22.243.211",
    "clientMacs": null,
    "rogueStChBy": null,
    "rogueClChBy": null,
    "classifiedRSSI": 0,
    "classifiedByAP": "",
    "className": "",
    "classification": "UNCLASSIFIED",
    "tracedWiredRogue": false,
    "switchPortShutdown": false
},
{
    "macAddress": "3c:08:f6:d9:08:a4",
    "mapInfo": {
        "mapHierarchyString": "Nortech Campus>Nortech-1>1st Floor>Tm",
        "mapHierarchyDetails": {
            "campus": "Nortech Campus",
            "building": "Nortech-1",
            "floor": "1st Floor",
            "floorAesUid": 727035700041482200,
            "zones": "Tm"
        }
    },
    "mapCoordinate": {
        "x": 35.502758,
        "y": 32.926517,
        "z": 0,
        "unit": "FEET"
    },
    "currentlyTracked": false,
    "confidenceFactor": 96,
    "locComputeType": null,
    "statistics": {
        "currentServerTime": "2017-11-30T22:58:26.929-0800",
        "firstLocatedTime": "2017-11-29T15:14:36.041-0800",
        "lastLocatedTime": "2017-11-30T18:00:03.312-0800"
    },
    "historyLogReason": "DISTANCE_CHANGE",

```

```

    "geoCoordinate": {
      "latitude": 37.422472113973086,
      "longitude": -121.9597454491154,
      "unit": "DEGREES"
    },
    "rawLocation": null,
    "networkStatus": "INACTIVE",
    "changedOn": 1512093605321,
    "totalClients": 0,
    "numOfDetectingAPs": 0,
    "type": null,
    "containmentLevel": null,
    "state": null,
    "maxDetectedRssi": 0,
    "ssid": null,
    "maxDetectingAPMacAddress": null,
    "maxRssiRadioType": 0,
    "zoneOfImpact": 0,
    "hiddenSSID": 0,
    "lastUpdated": null,
    "manufacturer": "Cisco Systems, Inc",
    "detectingControllers": "10.22.243.211",
    "clientMacs": null,
    "rogueStChBy": null,
    "rogueClChBy": null,
    "classifiedRSSI": 0,
    "classifiedByAP": "",
    "className": "",
    "classification": "UNCLASSIFIED",
    "tracedWiredRogue": false,
    "switchPortShutdown": false
  },
  {
    "macAddress": "3c:08:f6:d9:08:a4",
    "mapInfo": {
      "mapHierarchyString": "Nortech Campus>Nortech-1>1st Floor>CMX Bar",
      "mapHierarchyDetails": {
        "campus": "Nortech Campus",
        "building": "Nortech-1",
        "floor": "1st Floor",
        "floorAesUid": 727035700041482200,
        "zones": "CMX Bar"
      }
    },
    "mapCoordinate": {
      "x": 62.549908,
      "y": 29.465967,
      "z": 0,
      "unit": "FEET"
    },
    "currentlyTracked": false,
    "confidenceFactor": 96,
    "locComputeType": null,
    "statistics": {
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      "firstLocatedTime": "2017-11-29T15:14:36.041-0800",
      "lastLocatedTime": "2017-11-30T17:40:42.809-0800"
    },
    "historyLogReason": "DISTANCE_CHANGE",
    "geoCoordinate": {
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      "longitude": -121.95984268036422,
      "unit": "DEGREES"
    }
  },

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    "changedOn": 1512092442852,
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    "type": null,
    "containmentLevel": null,
    "state": null,
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    "ssid": null,
    "maxDetectingAPMacAddress": null,
    "maxRssiRadioType": 0,
    "zoneOfImpact": 0,
    "hiddenSSID": 0,
    "lastUpdated": null,
    "manufacturer": "Cisco Systems, Inc",
    "detectingControllers": "10.22.243.211",
    "clientMacs": null,
    "rogueStChBy": null,
    "rogueClChBy": null,
    "classifiedRSSI": 0,
    "classifiedByAP": "",
    "className": "",
    "classification": "UNCLASSIFIED",
    "tracedWiredRogue": false,
    "switchPortShutdown": false
  },
  {
    "macAddress": "3c:08:f6:d9:08:a4",
    "mapInfo": {
      "mapHierarchyString": "Nortech Campus>Nortech-1>1st Floor>CMX Clinic",
      "mapHierarchyDetails": {
        "campus": "Nortech Campus",
        "building": "Nortech-1",
        "floor": "1st Floor",
        "floorAesUid": 727035700041482200,
        "zones": "CMX Clinic"
      }
    },
    "mapCoordinate": {
      "x": 10.559283,
      "y": 15.158403,
      "z": 0,
      "unit": "FEET"
    },
    "currentlyTracked": false,
    "confidenceFactor": 72,
    "locComputeType": null,
    "statistics": {
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      "firstLocatedTime": "2017-11-29T15:14:36.041-0800",
      "lastLocatedTime": "2017-11-30T17:19:26.898-0800"
    },
    "historyLogReason": "DISTANCE_CHANGE",
    "geoCoordinate": {
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      "longitude": -121.95965571941056,
      "unit": "DEGREES"
    },
    "rawLocation": null,
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    "changedOn": 1512091171311,
    "totalClients": 0,
    "numOfDetectingAPs": 0,
  }
}

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"type": null,
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"state": null,
"maxDetectedRssi": 0,
"ssid": null,
"maxDetectingAPMacAddress": null,
"maxRssiRadioType": 0,
"zoneOfImpact": 0,
"hiddenSSID": 0,
"lastUpdated": null,
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"detectingControllers": "10.22.243.211",
"clientMacs": null,
"rogueStChBy": null,
"rogueClChBy": null,
"classifiedRSSI": 0,
"classifiedByAP": "",
"className": "",
"classification": "UNCLASSIFIED",
"tracedWiredRogue": false,
"switchPortShutdown": false
},
{
"macAddress": "3c:08:f6:d9:08:a4",
"mapInfo": {
"mapHierarchyString": "Nortech Campus>Nortech-1>1st Floor>CMX Clinic",
"mapHierarchyDetails": {
"campus": "Nortech Campus",
"building": "Nortech-1",
"floor": "1st Floor",
"floorAesUid": 727035700041482200,
"zones": "CMX Clinic"
}
},
"mapCoordinate": {
"x": 14.188843,
"y": 17.020206,
"z": 0,
"unit": "FEET"
},
"currentlyTracked": false,
"confidenceFactor": 72,
"locComputeType": null,
"statistics": {
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"firstLocatedTime": "2017-11-29T15:14:36.041-0800",
"lastLocatedTime": "2017-11-30T17:17:44.307-0800"
},
"historyLogReason": "DISTANCE_CHANGE",
"geoCoordinate": {
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"longitude": -121.95966877400087,
"unit": "DEGREES"
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"rawLocation": null,
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"changedOn": 1512091066313,
"totalClients": 0,
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"type": null,
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"state": null,
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"ssid": null,

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    "maxRssiRadioType": 0,
    "zoneOfImpact": 0,
    "hiddenSSID": 0,
    "lastUpdated": null,
    "manufacturer": "Cisco Systems, Inc",
    "detectingControllers": "10.22.243.211",
    "clientMacs": null,
    "rogueStChBy": null,
    "rogueClChBy": null,
    "classifiedRSSI": 0,
    "classifiedByAP": "",
    "className": "",
    "classification": "UNCLASSIFIED",
    "tracedWiredRogue": false,
    "switchPortShutdown": false
  },
  {
    "macAddress": "3c:08:f6:d9:08:a4",
    "mapInfo": {
      "mapHierarchyString": "Nortech Campus>Nortech-1>1st Floor>CMX Clinic",
      "mapHierarchyDetails": {
        "campus": "Nortech Campus",
        "building": "Nortech-1",
        "floor": "1st Floor",
        "floorAesUid": 727035700041482200,
        "zones": "CMX Clinic"
      }
    },
    "mapCoordinate": {
      "x": 4.1660514,
      "y": 7.8810964,
      "z": 0,
      "unit": "FEET"
    },
    "currentlyTracked": false,
    "confidenceFactor": 96,
    "locComputeType": null,
    "statistics": {
      "currentServerTime": "2017-11-30T22:58:26.932-0800",
      "firstLocatedTime": "2017-11-29T15:14:36.041-0800",
      "lastLocatedTime": "2017-11-30T16:16:01.817-0800"
    },
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    "geoCoordinate": {
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      "longitude": -121.95963271298406,
      "unit": "DEGREES"
    },
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    "changedOn": 1512087365823,
    "totalClients": 0,
    "numOfDetectingAPs": 0,
    "type": null,
    "containmentLevel": null,
    "state": null,
    "maxDetectedRssi": 0,
    "ssid": null,
    "maxDetectingAPMacAddress": null,
    "maxRssiRadioType": 0,
    "zoneOfImpact": 0,
    "hiddenSSID": 0,
    "lastUpdated": null,
  }
}

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"manufacturer": "Cisco Systems, Inc",
"detectingControllers": "10.22.243.211",
"clientMacs": null,
"rogueStChBy": null,
"rogueClChBy": null,
"classifiedRSSI": 0,
"classifiedByAP": "",
"className": "",
"classification": "UNCLASSIFIED",
"tracedWiredRogue": false,
"switchPortShutdown": false
},
{
  "macAddress": "3c:08:f6:d9:08:a4",
  "mapInfo": {
    "mapHierarchyString": "Nortech Campus>Nortech-1>1st Floor>CMX Clinic",
    "mapHierarchyDetails": {
      "campus": "Nortech Campus",
      "building": "Nortech-1",
      "floor": "1st Floor",
      "floorAesUid": 727035700041482200,
      "zones": "CMX Clinic"
    }
  },
  "mapCoordinate": {
    "x": 4.846126,
    "y": 9.683231,
    "z": 0,
    "unit": "FEET"
  },
  "currentlyTracked": false,
  "confidenceFactor": 96,
  "locComputeType": null,
  "statistics": {
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    "firstLocatedTime": "2017-11-29T15:14:36.041-0800",
    "lastLocatedTime": "2017-11-30T15:00:21.813-0800"
  },
  "historyLogReason": "DISTANCE_CHANGE",
  "geoCoordinate": {
    "latitude": 37.42240740935892,
    "longitude": -121.95963516326113,
    "unit": "DEGREES"
  },
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  "changedOn": 1512082823871,
  "totalClients": 0,
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  "type": null,
  "containmentLevel": null,
  "state": null,
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  "ssid": null,
  "maxDetectingAPMacAddress": null,
  "maxRssiRadioType": 0,
  "zoneOfImpact": 0,
  "hiddenSSID": 0,
  "lastUpdated": null,
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  "detectingControllers": "10.22.243.211",
  "clientMacs": null,
  "rogueStChBy": null,
  "rogueClChBy": null,

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    "classifiedRSSI": 0,
    "classifiedByAP": "",
    "className": "",
    "classification": "UNCLASSIFIED",
    "tracedWiredRogue": false,
    "switchPortShutdown": false
  },
  {
    "macAddress": "3c:08:f6:d9:08:a4",
    "mapInfo": {
      "mapHierarchyString": "Nortech Campus>Nortech-1>1st Floor",
      "mapHierarchyDetails": {
        "campus": "Nortech Campus",
        "building": "Nortech-1",
        "floor": "1st Floor",
        "floorAesUid": 727035700041482200,
        "zones": ""
      }
    },
    "mapCoordinate": {
      "x": 28.691513,
      "y": 23.520147,
      "z": 0,
      "unit": "FEET"
    },
    "currentlyTracked": false,
    "confidenceFactor": 80,
    "locComputeType": null,
    "statistics": {
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      "firstLocatedTime": "2017-11-29T15:14:36.041-0800",
      "lastLocatedTime": "2017-11-30T13:06:52.315-0800"
    },
    "historyLogReason": "DISTANCE_CHANGE",
    "geoCoordinate": {
      "latitude": 37.422445930346264,
      "longitude": -121.95972093363902,
      "unit": "DEGREES"
    },
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    "type": null,
    "containmentLevel": null,
    "state": null,
    "maxDetectedRssi": 0,
    "ssid": null,
    "maxDetectingAPMacAddress": null,
    "maxRssiRadioType": 0,
    "zoneOfImpact": 0,
    "hiddenSSID": 0,
    "lastUpdated": null,
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    "detectingControllers": "10.22.243.211",
    "clientMacs": null,
    "rogueStChBy": null,
    "rogueClChBy": null,
    "classifiedRSSI": 0,
    "classifiedByAP": "",
    "className": "",
    "classification": "UNCLASSIFIED",
    "tracedWiredRogue": false,
  }

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    "switchPortShutdown": false
  },
  {
    "macAddress": "3c:08:f6:d9:08:a4",
    "mapInfo": {
      "mapHierarchyString": "Nortech Campus>Nortech-1>1st Floor>CMX Clinic",
      "mapHierarchyDetails": {
        "campus": "Nortech Campus",
        "building": "Nortech-1",
        "floor": "1st Floor",
        "floorAesUid": 727035700041482200,
        "zones": "CMX Clinic"
      }
    },
    "mapCoordinate": {
      "x": 18.289343,
      "y": 18.687847,
      "z": 0,
      "unit": "FEET"
    },
    "currentlyTracked": false,
    "confidenceFactor": 80,
    "locComputeType": null,
    "statistics": {
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      "firstLocatedTime": "2017-11-29T15:14:36.041-0800",
      "lastLocatedTime": "2017-11-30T10:38:16.307-0800"
    },
    "historyLogReason": "DISTANCE_CHANGE",
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      "longitude": -121.95968352117679,
      "unit": "DEGREES"
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    "type": null,
    "containmentLevel": null,
    "state": null,
    "maxDetectedRssi": 0,
    "ssid": null,
    "maxDetectingAPMacAddress": null,
    "maxRssiRadioType": 0,
    "zoneOfImpact": 0,
    "hiddenSSID": 0,
    "lastUpdated": null,
    "manufacturer": "Cisco Systems, Inc",
    "detectingControllers": "10.22.243.211",
    "clientMacs": null,
    "rogueStChBy": null,
    "rogueClChBy": null,
    "classifiedRSSI": 0,
    "classifiedByAP": "",
    "className": "",
    "classification": "UNCLASSIFIED",
    "tracedWiredRogue": false,
    "switchPortShutdown": false
  },
  {
    "macAddress": "3c:08:f6:d9:08:a4",
    "mapInfo": {

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        "mapHierarchyString": "Nortech Campus>Nortech-1>1st Floor>CMX Clinic",
        "mapHierarchyDetails": {
            "campus": "Nortech Campus",
            "building": "Nortech-1",
            "floor": "1st Floor",
            "floorAesUid": 727035700041482200,
            "zones": "CMX Clinic"
        }
    },
    "mapCoordinate": {
        "x": 4.846126,
        "y": 9.683231,
        "z": 0,
        "unit": "FEET"
    },
    "currentlyTracked": false,
    "confidenceFactor": 96,
    "locComputeType": null,
    "statistics": {
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        "firstLocatedTime": "2017-11-29T15:14:36.041-0800",
        "lastLocatedTime": "2017-11-30T09:29:12.330-0800"
    },
    "historyLogReason": "DISTANCE_CHANGE",
    "geoCoordinate": {
        "latitude": 37.42240740935892,
        "longitude": -121.95963516326113,
        "unit": "DEGREES"
    },
    "rawLocation": null,
    "networkStatus": "INACTIVE",
    "changedOn": 1512062952353,
    "totalClients": 0,
    "numOfDetectingAPs": 0,
    "type": null,
    "containmentLevel": null,
    "state": null,
    "maxDetectedRssi": 0,
    "ssid": null,
    "maxDetectingAPMacAddress": null,
    "maxRssiRadioType": 0,
    "zoneOfImpact": 0,
    "hiddenSSID": 0,
    "lastUpdated": null,
    "manufacturer": "Cisco Systems, Inc",
    "detectingControllers": "10.22.243.211",
    "clientMacs": null,
    "rogueStChBy": null,
    "rogueClChBy": null,
    "classifiedRSSI": 0,
    "classifiedByAP": "",
    "className": "",
    "classification": "UNCLASSIFIED",
    "tracedWiredRogue": false,
    "switchPortShutdown": false
},
{
    "macAddress": "3c:08:f6:d9:08:a4",
    "mapInfo": {
        "mapHierarchyString": "Nortech Campus>Nortech-1>1st Floor>Tm",
        "mapHierarchyDetails": {
            "campus": "Nortech Campus",
            "building": "Nortech-1",
            "floor": "1st Floor",

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        "floorAesUid": 727035700041482200,
        "zones": "Tm"
    }
},
"mapCoordinate": {
    "x": 33.190983,
    "y": 26.26249,
    "z": 0,
    "unit": "FEET"
},
"currentlyTracked": false,
"confidenceFactor": 64,
"locComputeType": null,
"statistics": {
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    "firstLocatedTime": "2017-11-29T15:14:36.041-0800",
    "lastLocatedTime": "2017-11-30T08:28:47.302-0800"
},
"historyLogReason": "DISTANCE_CHANGE",
"geoCoordinate": {
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    "longitude": -121.95973711833454,
    "unit": "DEGREES"
},
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"changedOn": 1512059329303,
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"type": null,
"containmentLevel": null,
"state": null,
"maxDetectedRssi": 0,
"ssid": null,
"maxDetectingAPMacAddress": null,
"maxRssiRadioType": 0,
"zoneOfImpact": 0,
"hiddenSSID": 0,
"lastUpdated": null,
"manufacturer": "Cisco Systems, Inc",
"detectingControllers": "10.22.243.211",
"clientMacs": null,
"rogueStChBy": null,
"rogueClChBy": null,
"classifiedRSSI": 0,
"classifiedByAP": "",
"className": "",
"classification": "UNCLASSIFIED",
"tracedWiredRogue": false,
"switchPortShutdown": false
},
{
    "macAddress": "3c:08:f6:d9:08:a4",
    "mapInfo": {
        "mapHierarchyString": "Nortech Campus>Nortech-1>1st Floor>CMX Clinic",
        "mapHierarchyDetails": {
            "campus": "Nortech Campus",
            "building": "Nortech-1",
            "floor": "1st Floor",
            "floorAesUid": 727035700041482200,
            "zones": "CMX Clinic"
        }
    },
    "mapCoordinate": {

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        "x": 14.697663,
        "y": 15.564997,
        "z": 0,
        "unit": "FEET"
    },
    "currentlyTracked": false,
    "confidenceFactor": 72,
    "locComputeType": null,
    "statistics": {
        "currentServerTime": "2017-11-30T22:58:26.944-0800",
        "firstLocatedTime": "2017-11-29T15:14:36.041-0800",
        "lastLocatedTime": "2017-11-30T05:34:05.813-0800"
    },
    "historyLogReason": "DISTANCE_CHANGE",
    "geoCoordinate": {
        "latitude": 37.422423783682305,
        "longitude": -121.95967059910944,
        "unit": "DEGREES"
    },
    "rawLocation": null,
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    "changedOn": 1512048845825,
    "totalClients": 0,
    "numOfDetectingAPs": 0,
    "type": null,
    "containmentLevel": null,
    "state": null,
    "maxDetectedRssi": 0,
    "ssid": null,
    "maxDetectingAPMacAddress": null,
    "maxRssiRadioType": 0,
    "zoneOfImpact": 0,
    "hiddenSSID": 0,
    "lastUpdated": null,
    "manufacturer": "Cisco Systems, Inc",
    "detectingControllers": "10.22.243.211",
    "clientMacs": null,
    "rogueStChBy": null,
    "rogueClChBy": null,
    "classifiedRSSI": 0,
    "classifiedByAP": "",
    "className": "",
    "classification": "UNCLASSIFIED",
    "tracedWiredRogue": false,
    "switchPortShutdown": false
    },
    {
        "macAddress": "3c:08:f6:d9:08:a4",
        "mapInfo": {
            "mapHierarchyString": "Nortech Campus>Nortech-1>1st Floor",
            "mapHierarchyDetails": {
                "campus": "Nortech Campus",
                "building": "Nortech-1",
                "floor": "1st Floor",
                "floorAesUid": 727035700041482200,
                "zones": ""
            }
        },
        "mapCoordinate": {
            "x": 1.7408412,
            "y": 4.3267527,
            "z": 0,
            "unit": "FEET"
        }
    },

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"currentlyTracked": false,
"confidenceFactor": 88,
"locComputeType": null,
"statistics": {
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  "firstLocatedTime": "2017-11-29T15:14:36.041-0800",
  "lastLocatedTime": "2017-11-30T04:41:11.265-0800"
},
"historyLogReason": "DISTANCE_CHANGE",
"geoCoordinate": {
  "latitude": 37.422392499283504,
  "longitude": -121.95962398341334,
  "unit": "DEGREES"
},
"rawLocation": null,
"networkStatus": "INACTIVE",
"changedOn": 1512045675327,
"totalClients": 0,
"numOfDetectingAPs": 0,
"type": null,
"containmentLevel": null,
"state": null,
"maxDetectedRssi": 0,
"ssid": null,
"maxDetectingAPMacAddress": null,
"maxRssiRadioType": 0,
"zoneOfImpact": 0,
"hiddenSSID": 0,
"lastUpdated": null,
"manufacturer": "Cisco Systems, Inc",
"detectingControllers": "10.22.243.211",
"clientMacs": null,
"rogueStChBy": null,
"rogueClChBy": null,
"classifiedRSSI": 0,
"classifiedByAP": "",
"className": "",
"classification": "UNCLASSIFIED",
"tracedWiredRogue": false,
"switchPortShutdown": false
},
{
  "macAddress": "3c:08:f6:d9:08:a4",
  "mapInfo": {
    "mapHierarchyString": "Nortech Campus>Nortech-1>1st Floor",
    "mapHierarchyDetails": {
      "campus": "Nortech Campus",
      "building": "Nortech-1",
      "floor": "1st Floor",
      "floorAesUid": 727035700041482200,
      "zones": ""
    }
  },
  "mapCoordinate": {
    "x": 0.57220083,
    "y": 1.3926805,
    "z": 0,
    "unit": "FEET"
  },
  "currentlyTracked": false,
  "confidenceFactor": 72,
  "locComputeType": null,
  "statistics": {
    "currentServerTime": "2017-11-30T22:58:26.945-0800",

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        "firstLocatedTime": "2017-11-29T15:14:36.041-0800",
        "lastLocatedTime": "2017-11-30T04:30:22.379-0800"
    },
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    "geoCoordinate": {
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        "longitude": -121.95961977333023,
        "unit": "DEGREES"
    },
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    "changedOn": 1512045022414,
    "totalClients": 0,
    "numOfDetectingAPs": 0,
    "type": null,
    "containmentLevel": null,
    "state": null,
    "maxDetectedRssi": 0,
    "ssid": null,
    "maxDetectingAPMacAddress": null,
    "maxRssiRadioType": 0,
    "zoneOfImpact": 0,
    "hiddenSSID": 0,
    "lastUpdated": null,
    "manufacturer": "Cisco Systems, Inc",
    "detectingControllers": "10.22.243.211",
    "clientMacs": null,
    "rogueStChBy": null,
    "rogueClChBy": null,
    "classifiedRSSI": 0,
    "classifiedByAP": "",
    "className": "",
    "classification": "UNCLASSIFIED",
    "tracedWiredRogue": false,
    "switchPortShutdown": false
},
{
    "macAddress": "3c:08:f6:d9:08:a4",
    "mapInfo": {
        "mapHierarchyString": "Nortech Campus>Nortech-1>1st Floor>Tm",
        "mapHierarchyDetails": {
            "campus": "Nortech Campus",
            "building": "Nortech-1",
            "floor": "1st Floor",
            "floorAesUid": 727035700041482200,
            "zones": "Tm"
        }
    },
    "mapCoordinate": {
        "x": 30.385988,
        "y": 24.133757,
        "z": 0,
        "unit": "FEET"
    },
    "currentlyTracked": false,
    "confidenceFactor": 80,
    "locComputeType": null,
    "statistics": {
        "currentServerTime": "2017-11-30T22:58:26.945-0800",
        "firstLocatedTime": "2017-11-29T15:14:36.041-0800",
        "lastLocatedTime": "2017-11-30T03:21:52.431-0800"
    },
    "historyLogReason": "DISTANCE_CHANGE",
    "geoCoordinate": {

```

```

        "latitude": 37.422447638796676,
        "longitude": -121.95972702748679,
        "unit": "DEGREES"
    },
    "rawLocation": null,
    "networkStatus": "INACTIVE",
    "changedOn": 1512040914823,
    "totalClients": 0,
    "numOfDetectingAPs": 0,
    "type": null,
    "containmentLevel": null,
    "state": null,
    "maxDetectedRssi": 0,
    "ssid": null,
    "maxDetectingAPMacAddress": null,
    "maxRssiRadioType": 0,
    "zoneOfImpact": 0,
    "hiddenSSID": 0,
    "lastUpdated": null,
    "manufacturer": "Cisco Systems, Inc",
    "detectingControllers": "10.22.243.211",
    "clientMacs": null,
    "rogueStChBy": null,
    "rogueClChBy": null,
    "classifiedRSSI": 0,
    "classifiedByAP": "",
    "className": "",
    "classification": "UNCLASSIFIED",
    "tracedWiredRogue": false,
    "switchPortShutdown": false
},
{
    "macAddress": "3c:08:f6:d9:08:a4",
    "mapInfo": {
        "mapHierarchyString": "Nortech Campus>Nortech-1>1st Floor>CMX Clinic",
        "mapHierarchyDetails": {
            "campus": "Nortech Campus",
            "building": "Nortech-1",
            "floor": "1st Floor",
            "floorAesUid": 727035700041482200,
            "zones": "CMX Clinic"
        }
    },
    "mapCoordinate": {
        "x": 4.846126,
        "y": 9.683231,
        "z": 0,
        "unit": "FEET"
    },
    "currentlyTracked": false,
    "confidenceFactor": 96,
    "locComputeType": null,
    "statistics": {
        "currentServerTime": "2017-11-30T22:58:26.945-0800",
        "firstLocatedTime": "2017-11-29T15:14:36.041-0800",
        "lastLocatedTime": "2017-11-30T02:52:21.323-0800"
    },
    "historyLogReason": "DISTANCE_CHANGE",
    "geoCoordinate": {
        "latitude": 37.42240740935892,
        "longitude": -121.95963516326113,
        "unit": "DEGREES"
    },
    "rawLocation": null,

```

```

    "networkStatus": "INACTIVE",
    "changedOn": 1512039145307,
    "totalClients": 0,
    "numOfDetectingAPs": 0,
    "type": null,
    "containmentLevel": null,
    "state": null,
    "maxDetectedRssi": 0,
    "ssid": null,
    "maxDetectingAPMacAddress": null,
    "maxRssiRadioType": 0,
    "zoneOfImpact": 0,
    "hiddenSSID": 0,
    "lastUpdated": null,
    "manufacturer": "Cisco Systems, Inc",
    "detectingControllers": "10.22.243.211",
    "clientMacs": null,
    "rogueStChBy": null,
    "rogueClChBy": null,
    "classifiedRSSI": 0,
    "classifiedByAP": "",
    "className": "",
    "classification": "UNCLASSIFIED",
    "tracedWiredRogue": false,
    "switchPortShutdown": false
  },
  {
    "macAddress": "3c:08:f6:d9:08:a4",
    "mapInfo": {
      "mapHierarchyString": "Nortech Campus>Nortech-1>1st Floor>CMX Clinic",
      "mapHierarchyDetails": {
        "campus": "Nortech Campus",
        "building": "Nortech-1",
        "floor": "1st Floor",
        "floorAesUid": 727035700041482200,
        "zones": "CMX Clinic"
      }
    },
    "mapCoordinate": {
      "x": 18.552563,
      "y": 12.923709,
      "z": 0,
      "unit": "FEET"
    },
    "currentlyTracked": false,
    "confidenceFactor": 64,
    "locComputeType": null,
    "statistics": {
      "currentServerTime": "2017-11-30T22:58:26.946-0800",
      "firstLocatedTime": "2017-11-29T15:14:36.041-0800",
      "lastLocatedTime": "2017-11-30T02:36:11.322-0800"
    },
    "historyLogReason": "DISTANCE_CHANGE",
    "geoCoordinate": {
      "latitude": 37.42241643324174,
      "longitude": -121.9596844507661,
      "unit": "DEGREES"
    },
    "rawLocation": null,
    "networkStatus": "INACTIVE",
    "changedOn": 1512038175805,
    "totalClients": 0,
    "numOfDetectingAPs": 0,
    "type": null,
  }
}

```

```

"containmentLevel": null,
"state": null,
"maxDetectedRssi": 0,
"ssid": null,
"maxDetectingAPMacAddress": null,
"maxRssiRadioType": 0,
"zoneOfImpact": 0,
"hiddenSSID": 0,
"lastUpdated": null,
"manufacturer": "Cisco Systems, Inc",
"detectingControllers": "10.22.243.211",
"clientMacs": null,
"rogueStChBy": null,
"rogueClChBy": null,
"classifiedRSSI": 0,
"classifiedByAP": "",
"className": "",
"classification": "UNCLASSIFIED",
"tracedWiredRogue": false,
"switchPortShutdown": false
},
{
"macAddress": "3c:08:f6:d9:08:a4",
"mapInfo": {
"mapHierarchyString": "Nortech Campus>Nortech-1>1st Floor>CMX Clinic",
"mapHierarchyDetails": {
"campus": "Nortech Campus",
"building": "Nortech-1",
"floor": "1st Floor",
"floorAesUid": 727035700041482200,
"zones": "CMX Clinic"
}
},
"mapCoordinate": {
"x": 4.846126,
"y": 9.683231,
"z": 0,
"unit": "FEET"
},
"currentlyTracked": false,
"confidenceFactor": 96,
"locComputeType": null,
"statistics": {
"currentServerTime": "2017-11-30T22:58:26.946-0800",
"firstLocatedTime": "2017-11-29T15:14:36.041-0800",
"lastLocatedTime": "2017-11-30T01:46:33.509-0800"
},
"historyLogReason": "DISTANCE_CHANGE",
"geoCoordinate": {
"latitude": 37.42240740935892,
"longitude": -121.95963516326113,
"unit": "DEGREES"
},
"rawLocation": null,
"networkStatus": "INACTIVE",
"changedOn": 1512035193535,
"totalClients": 0,
"numOfDetectingAPs": 0,
"type": null,
"containmentLevel": null,
"state": null,
"maxDetectedRssi": 0,
"ssid": null,
"maxDetectingAPMacAddress": null,

```

```

    "maxRssiRadioType": 0,
    "zoneOfImpact": 0,
    "hiddenSSID": 0,
    "lastUpdated": null,
    "manufacturer": "Cisco Systems, Inc",
    "detectingControllers": "10.22.243.211",
    "clientMacs": null,
    "rogueStChBy": null,
    "rogueClChBy": null,
    "classifiedRSSI": 0,
    "classifiedByAP": "",
    "className": "",
    "classification": "UNCLASSIFIED",
    "tracedWiredRogue": false,
    "switchPortShutdown": false
  },
  {
    "macAddress": "3c:08:f6:d9:08:a4",
    "mapInfo": {
      "mapHierarchyString": "Nortech Campus>Nortech-1>1st Floor>CMX Clinic",
      "mapHierarchyDetails": {
        "campus": "Nortech Campus",
        "building": "Nortech-1",
        "floor": "1st Floor",
        "floorAesUid": 727035700041482200,
        "zones": "CMX Clinic"
      }
    },
    "mapCoordinate": {
      "x": 21.594147,
      "y": 17.890963,
      "z": 0,
      "unit": "FEET"
    },
    "currentlyTracked": false,
    "confidenceFactor": 80,
    "locComputeType": null,
    "statistics": {
      "currentServerTime": "2017-11-30T22:58:26.947-0800",
      "firstLocatedTime": "2017-11-29T15:14:36.041-0800",
      "lastLocatedTime": "2017-11-30T01:45:24.317-0800"
    },
    "historyLogReason": "DISTANCE_CHANGE",
    "geoCoordinate": {
      "latitude": 37.42243025993865,
      "longitude": -121.9596954004619,
      "unit": "DEGREES"
    },
    "rawLocation": null,
    "networkStatus": "INACTIVE",
    "changedOn": 1512035124333,
    "totalClients": 0,
    "numOfDetectingAPs": 0,
    "type": null,
    "containmentLevel": null,
    "state": null,
    "maxDetectedRssi": 0,
    "ssid": null,
    "maxDetectingAPMacAddress": null,
    "maxRssiRadioType": 0,
    "zoneOfImpact": 0,
    "hiddenSSID": 0,
    "lastUpdated": null,
    "manufacturer": "Cisco Systems, Inc",

```

```
    "detectingControllers": "10.22.243.211",
    "clientMacs": null,
    "rogueStChBy": null,
    "rogueClChBy": null,
    "classifiedRSSI": 0,
    "classifiedByAP": "",
    "className": "",
    "classification": "UNCLASSIFIED",
    "tracedWiredRogue": false,
    "switchPortShutdown": false
  }
]
```

API History

Table 105: API History

| Release | Modification |
|------------------------|-------------------------|
| Cisco CMX Release 10.4 | This API is introduced. |

Clients History API

GET: All Client History

Description

This API returns the history of all active clients. This does not include sleeping static devices that do not send probes. It does not support pagination, but you can extract small chunks of data by specifying parameters **locatedAfterTime** and **locatedBeforeTime** (in milliseconds).

This API would use the current date as date range from midnight to current time: `/api/location/v1/history/clients`. This would use the passed date as date range from passed date + fromHour to passed date + toHour: `/api/location/v1/history/clients?date=2016/03/02` and `fromHour=14` and `toHour=15`. This would use the date range as mentioned by parameters: `locatedAfterTime` (1456894800000) milliseconds equivalent to YYYY/MM/DD HH:MM:SS 2016/03/01 21:00:00. `locatedBeforeTime` (1456896600000) milliseconds equivalent to YYYY/MM/DD HH:MM:SS 2016/03/01 21:30:00: `/api/location/v1/history/clients?locatedAfterTime=1456894800000` and `locatedBeforeTime=1456896600000`.

With CSCuz69078, when `locatedAfterTime` and `locatedBeforeTime` specified in API is more than a day and less than an hour, the API returns the following error.

ERROR - Cassandra timeout during read query at consistency ONE (1 responses were required but only 0 replica responded)

For example,

`https://<ip-address>/api/location/v1/history/clients?locatedAfterTime=1459468800000&locatedBeforeTime=1459636800000` returns the ERROR.

This API response returns a maximum of 5000 records without pagination and is sorted based by the MAC address. Therefore, without using the parameters such as **locatedAfterTime** and **locatedBeforeTime** to limit the number of records of a specific MAC Address, the API response for client history will return only one MAC Address. The sort order should be by date/time of occurrence.



Note

- This API can only support queries when the number of clients is less than 5000 per minute.
- Do not use this API if there are more than 2000 records. For larger datasets, it is recommended to use Northbound Notifications.

HTTP Method

GET

Resource URI

`/api/location/v1/history/clients`

Requires OAuth

N

Parameters

None.

Content Type

application/json

Sample Output (JSON)

```
[
  {
    "macAddress": "ac:cf:85:29:53:5f",
    "mapInfo": {
      "mapHierarchyString": "Nortech Campus>Nortech-1>1st Floor",
      "mapHierarchyDetails": {
        "campus": "Nortech Campus",
        "building": "Nortech-1",
        "floor": "1st Floor",
        "floorAesUid": 727035700041482200,
        "zones": ""
      }
    },
    "mapCoordinate": {
      "x": 78.017624,
      "y": 38.217056,
      "z": 0,
      "unit": "FEET"
    },
    "currentlyTracked": true,
    "confidenceFactor": 160,
    "locComputeType": "RSSI",
    "statistics": {
      "currentServerTime": "2017-12-06T22:31:17.730-0800",
      "firstLocatedTime": "2017-12-06T12:57:13.469-0800",
      "lastLocatedTime": "2017-12-06T12:57:13.469-0800"
    },
    "historyLogReason": "FLOOR_CHANGE",
    "geoCoordinate": {
      "latitude": 37.42248685324713,
      "longitude": -121.95989831612766,
      "unit": "DEGREES"
    },
    "rawLocation": null,
    "networkStatus": "ACTIVE",
    "changedOn": 1512593833469,
    "ipAddress": [],
    "userName": "",
    "ssid": "",
    "sourceTimestamp": "1512593833469",
    "band": "UNKNOWN",
    "apMacAddress": "",
    "dot11Status": "UNKNOWN",
    "manufacturer": "HUAWEI TECHNOLOGIES CO.,LTD",
    "areaGlobalIdList": null,
    "detectingControllers": "10.22.243.211",
    "bytesSent": 0,
    "bytesReceived": 0,
    "guestUser": false
  },
  {
    "macAddress": "08:cc:68:b4:1c:1f",
    "mapInfo": {
```

```

    "mapHierarchyString": "Nortech Campus>Nortech-1>1st Floor>CMX Clinic",
    "mapHierarchyDetails": {
      "campus": "Nortech Campus",
      "building": "Nortech-1",
      "floor": "1st Floor",
      "floorAesUid": 727035700041482200,
      "zones": "CMX Clinic"
    }
  },
  "mapCoordinate": {
    "x": 22.515627,
    "y": 15.5579815,
    "z": 0,
    "unit": "FEET"
  },
  "currentlyTracked": true,
  "confidenceFactor": 32,
  "locComputeType": "RSSI",
  "statistics": {
    "currentServerTime": "2017-12-06T22:31:17.731-0800",
    "firstLocatedTime": "2017-12-06T19:09:30.430-0800",
    "lastLocatedTime": "2017-12-06T19:09:30.430-0800"
  },
  "historyLogReason": "NETWORK_STATUS_CHANGE",
  "geoCoordinate": {
    "latitude": 37.42242376668243,
    "longitude": -121.95969870663463,
    "unit": "DEGREES"
  },
  "rawLocation": null,
  "networkStatus": "ACTIVE",
  "changedOn": 1512616170430,
  "ipAddress": [],
  "userName": "",
  "ssId": "",
  "sourceTimestamp": "1512616170430",
  "band": "UNKNOWN",
  "apMacAddress": "",
  "dot11Status": "UNKNOWN",
  "manufacturer": "Cisco Systems, Inc",
  "areaGlobalIdList": null,
  "detectingControllers": "10.22.243.211",
  "bytesSent": 0,
  "bytesReceived": 0,
  "guestUser": false
},
{
  "macAddress": "08:cc:68:b4:1c:1f",
  "mapInfo": {
    "mapHierarchyString": "Nortech Campus>Nortech-1>1st Floor>CMX Clinic",
    "mapHierarchyDetails": {
      "campus": "Nortech Campus",
      "building": "Nortech-1",
      "floor": "1st Floor",
      "floorAesUid": 727035700041482200,
      "zones": "CMX Clinic"
    }
  },
  "mapCoordinate": {
    "x": 21.428608,
    "y": 16.509167,
    "z": 0,
    "unit": "FEET"
  },
},

```

```

    "currentlyTracked": false,
    "confidenceFactor": 48,
    "locComputeType": "RSSI",
    "statistics": {
      "currentServerTime": "2017-12-06T22:31:17.731-0800",
      "firstLocatedTime": "2017-12-06T19:09:03.079-0800",
      "lastLocatedTime": "2017-12-06T19:09:05.082-0800"
    },
    "historyLogReason": "NETWORK_STATUS_CHANGE",
    "geoCoordinate": {
      "latitude": 37.422426413833385,
      "longitude": -121.95969480129244,
      "unit": "DEGREES"
    },
    "rawLocation": null,
    "networkStatus": "INACTIVE",
    "changedOn": 1512616145082,
    "ipAddress": [],
    "userName": "",
    "ssId": "",
    "sourceTimestamp": "1512616145082",
    "band": "UNKNOWN",
    "apMacAddress": "",
    "dot11Status": "UNKNOWN",
    "manufacturer": "Cisco Systems, Inc",
    "areaGlobalIdList": null,
    "detectingControllers": "10.22.243.211",
    "bytesSent": 0,
    "bytesReceived": 0,
    "guestUser": false
  }
}
]

```

GET: Unique MAC Address Seen on a Given Day on a Floor or Zone

Description

This API returns the unique MAC address seen on a given date on a floor or zone. It expects parameters, date and hierarchy. Hierarchy can be up to floor level or zone level. For example, floor level would include: campus-name, building-name, and floor-name. Zone level would be campus-name, building-name, floor-name, and zone-name. If you know the floor ID or the zone ID, then hierarchy is optional and you can specify date and floor ID or date and zone ID parameters.

When the date parameter is not specified, the API would use current date as default. Specifying either of the parameters like hierarchy or floor ID or zone ID is mandatory. This API also supports filter by time and filter by distance criteria. For filtering by time, use fromHour and toHour (both in 24 hr format) parameters. For filtering by distance queries, using filtering by time is mandatory and only a difference of one hour is allowed between toHour and fromHour is one hour.

For example:

By hierarchy:

/api/location/v1/history/uniqueclientsbyhierarchy?hierarchy=System%20Campus/Floor-19/1st%20Floor.
 Floor ID:/api/location/v1/history/uniqueclientsbyhierarchy?floorid=730297895206534073.

By zoneid and date:/api/location/v1/history/uniqueclientsbyhierarchy?zoneid=23 and date=2016/02/29. By hierarchy and filter by time:

/api/location/v1/history/uniqueclientsbyhierarchy?hierarchy=System%20Campus/BGLD-19/1st%20Floor
 and fromHour=13 and toHour=14.

By hierarchy, filter by time and filter by distance:

/api/location/v1/history/uniqueclientsbyhierarchy?hierarchy=System%20Campus/BGLD-19/1st%20Floor
and fromHour=13 and toHour=14 and x=30 and y=50 and distance=10.

HTTP Method

GET

Resource URI

/api/location/v1/history/uniqueclientsbyhierarchy

Requires Basic Auth

N

Parameters

Table 106: Parameter Details

| Name | Required | Default | Type | Location | Description |
|-----------|----------|---------|--------|----------|---|
| hierarchy | Y | — | String | query | Hierarchy in format campus-name/building-name/floor-name. |
| date | N | — | String | query | Date in format of yyyy/mm/dd. |
| floorid | N | — | String | query | Floor ID. |
| zoneid | N | — | String | query | Zone ID. |
| fromHour | N | — | String | query | FromHour, HH in 24 hour format. |
| toHour | N | — | String | query | ToHour, HH in 24 hour format |
| x | N | — | String | query | x |
| y | N | — | String | query | y |
| distance | N | — | String | query | Distance in feet |

Content Type

application/json

GET: Compact History of Client By Date and IPv4 Address

Description

This API returns compact history of client by date and IPv4 address.

HTTP Method

GET

Resource URI

/api/location/v1/historylite/byipaddress/:ipv4address

Requires Basic Auth

N

Parameters*Table 107: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|-------------|----------|---------|--------|-------------|-------------------------------|
| date | Y | — | String | query | Date in format of yyyy/mm/dd. |
| ipv4address | Y | — | String | pathReplace | IPv4 Address. |

Content Type

application/json

Sample Output

http://10.68.40.131/api/location/v1/historylite/byipaddress/10.68.41.186

```
{
  "Macaddress": null,
  "Ipv4address": "10.22.243.125",
  "Data": [],
  "Count": 0,
  "Date": "2018/07/13"
}
```

GET: Compact History of Client by Date, Username

Description

This API returns compact history of client like number of logins and MAC address of device. The parameters given are date and username.

If the same username was used to login at multiple devices, the MAC address of only one of the devices is returned. To return all MAC addresses, set allMacs parameter to true.

HTTP Method

GET

Resource URI

/api/location/v1/historylite/byusername/:username

Requires Basic Auth

N

Parameters

Table 108: Parameter Details

| Name | Required | Default | Type | Location | Description |
|------------|----------|---------|--------|-------------|--|
| date | Y | — | String | query | Date in format of yyyy/mm/dd |
| username | Y | — | String | pathReplace | User name. |
| allMacs | N | — | String | query | Return all macaddresses associated with this Username for given date Allowed values/formats: true false |
| allResults | N | | String | query | Return all results Allowed values/formats: true false |

Content Type

application/json

Sample Output

http://<ip-address>/api/location/v1/historylite/byusername/sharangp?date=2017/06/12

```
{
  Count: 591,
  Date: "2017/06/12",
  Username: "sharangp",
  Macaddress: "3c:a9:f4:6c:ee:44"
}
```

http://<ip-address>/api/location/v1/historylite/byusername/sharangp?date=2017/06/12&allMacs=true

```
{
  Count: 2,
  Date: "2017/06/12",
  Username: "sharangp",
  Macaddress: [
    "3c:a9:f4:6c:4c:7c",
  ]
}
```

```
"3c:a9:f4:6c:ee:44"
]
}
```

GET: Compact History of Client by MAC Address

Description

This API returns the history of an active client by its MAC address.

HTTP Method

GET

Resource URI

/api/location/v1/history/clients/:macaddress

Requires OAuth

N

Parameters

Table 109: Parameter Details

| Name | Required | Default | Type | Location | Description |
|------------|----------|---------|--------|-------------|-------------------------------|
| macaddress | Y | — | String | pathReplace | Client Macaddress. |
| date | Y | — | String | query | Date in format of yyyy/mm/dd. |

Content Type

application/json

Sample Output (JSON)

```
[
  {
    "macAddress": "98:01:a7:de:cd:35",
    "mapInfo": {
      "mapHierarchyString": "Nortech Campus>Nortech-1>1st Floor>CMX Clinic",
      "mapHierarchyDetails": {
        "campus": "Nortech Campus",
        "building": "Nortech-1",
        "floor": "1st Floor",
        "floorAesUid": 727035700041482200,
        "zones": "CMX Clinic"
      }
    },
    "mapCoordinate": {
      "x": 26.908728,

```

```

        "y": 14.038175,
        "z": 0,
        "unit": "FEET"
    },
    "currentlyTracked": true,
    "confidenceFactor": 16,
    "locComputeType": "RSSI",
    "statistics": {
        "currentServerTime": "2017-12-06T22:41:49.631-0800",
        "firstLocatedTime": "2017-12-06T12:19:31.509-0800",
        "lastLocatedTime": "2017-12-06T22:41:48.696-0800"
    },
    "historyLogReason": "DISTANCE_CHANGE",
    "geoCoordinate": {
        "latitude": 37.422419537914266,
        "longitude": -121.9597144965198,
        "unit": "DEGREES"
    },
    "rawLocation": null,
    "networkStatus": "ACTIVE",
    "changedOn": 1512628908696,
    "ipAddress": [],
    "userName": "",
    "ssId": "",
    "sourceTimestamp": "1512628908696",
    "band": "UNKNOWN",
    "apMacAddress": "",
    "dot11Status": "UNKNOWN",
    "manufacturer": "Apple, Inc.",
    "areaGlobalIdList": null,
    "detectingControllers": "10.22.243.211",
    "bytesSent": 0,
    "bytesReceived": 0,
    "guestUser": false
},
{
    "macAddress": "98:01:a7:de:cd:35",
    "mapInfo": {
        "mapHierarchyString": "Nortech Campus>Nortech-1>1st Floor",
        "mapHierarchyDetails": {
            "campus": "Nortech Campus",
            "building": "Nortech-1",
            "floor": "1st Floor",
            "floorAesUid": 727035700041482200,
            "zones": ""
        }
    },
    "mapCoordinate": {
        "x": 25.287996,
        "y": 25.027487,
        "z": 0,
        "unit": "FEET"
    },
    "currentlyTracked": true,
    "confidenceFactor": 24,
    "locComputeType": "RSSI",
    "statistics": {
        "currentServerTime": "2017-12-06T22:41:49.632-0800",
        "firstLocatedTime": "2017-12-06T12:19:31.509-0800",
        "lastLocatedTime": "2017-12-06T22:41:46.346-0800"
    },
    "historyLogReason": "DISTANCE_CHANGE",
    "geoCoordinate": {
        "latitude": 37.42245012473281,

```



```

        "longitude": -121.9597087015209,
        "unit": "DEGREES"
    },
    "rawLocation": null,
    "networkStatus": "ACTIVE",
    "changedOn": 1512628906346,
    "ipAddress": [],
    "userName": "",
    "ssid": "",
    "sourceTimestamp": "1512628906346",
    "band": "UNKNOWN",
    "apMacAddress": "",
    "dot11Status": "UNKNOWN",
    "manufacturer": "Apple, Inc.",
    "areaGlobalIdList": null,
    "detectingControllers": "10.22.243.211",
    "bytesSent": 0,
    "bytesReceived": 0,
    "guestUser": false
},
{
    "macAddress": "98:01:a7:de:cd:35",
    "mapInfo": {
        "mapHierarchyString": "Nortech Campus>Nortech-1>1st Floor>CMX Clinic",
        "mapHierarchyDetails": {
            "campus": "Nortech Campus",
            "building": "Nortech-1",
            "floor": "1st Floor",
            "floorAesUid": 727035700041482200,
            "zones": "CMX Clinic"
        }
    },
    "mapCoordinate": {
        "x": 26.385386,
        "y": 18.708204,
        "z": 0,
        "unit": "FEET"
    },
    "currentlyTracked": true,
    "confidenceFactor": 16,
    "locComputeType": "RSSI",
    "statistics": {
        "currentServerTime": "2017-12-06T22:41:49.632-0800",
        "firstLocatedTime": "2017-12-06T12:19:31.509-0800",
        "lastLocatedTime": "2017-12-06T22:40:44.342-0800"
    },
    "historyLogReason": "DISTANCE_CHANGE",
    "geoCoordinate": {
        "latitude": 37.42243253617424,
        "longitude": -121.95971262854559,
        "unit": "DEGREES"
    },
    "rawLocation": null,
    "networkStatus": "ACTIVE",
    "changedOn": 1512628844342,
    "ipAddress": [],
    "userName": "",
    "ssid": "",
    "sourceTimestamp": "1512628844342",
    "band": "UNKNOWN",
    "apMacAddress": "",
    "dot11Status": "UNKNOWN",
    "manufacturer": "Apple, Inc.",
    "areaGlobalIdList": null,

```

```

    "detectingControllers": "10.22.243.211",
    "bytesSent": 0,
    "bytesReceived": 0,
    "guestUser": false
  },
  {
    "macAddress": "98:01:a7:de:cd:35",
    "mapInfo": {
      "mapHierarchyString": "Nortech Campus>Nortech-1>1st Floor>CMX Bar",
      "mapHierarchyDetails": {
        "campus": "Nortech Campus",
        "building": "Nortech-1",
        "floor": "1st Floor",
        "floorAesUid": 727035700041482200,
        "zones": "CMX Bar"
      }
    },
    "mapCoordinate": {
      "x": 28.39643,
      "y": 35.002888,
      "z": 0,
      "unit": "FEET"
    },
    "currentlyTracked": true,
    "confidenceFactor": 24,
    "locComputeType": "RSSI",
    "statistics": {
      "currentServerTime": "2017-12-06T22:41:49.633-0800",
      "firstLocatedTime": "2017-12-06T12:19:31.509-0800",
      "lastLocatedTime": "2017-12-06T22:40:41.877-0800"
    },
    "historyLogReason": "DISTANCE_CHANGE",
    "geoCoordinate": {
      "latitude": 37.4224778909874,
      "longitude": -121.95971990610984,
      "unit": "DEGREES"
    },
    "rawLocation": null,
    "networkStatus": "ACTIVE",
    "changedOn": 1512628841877,
    "ipAddress": [],
    "userName": "",
    "ssId": "",
    "sourceTimestamp": "1512628841877",
    "band": "UNKNOWN",
    "apMacAddress": "",
    "dot11Status": "UNKNOWN",
    "manufacturer": "Apple, Inc.",
    "areaGlobalIdList": null,
    "detectingControllers": "10.22.243.211",
    "bytesSent": 0,
    "bytesReceived": 0,
    "guestUser": false
  }
]

```

BLE-Tags Location and Information API

GET: Returns all BLE-Tags

Description

This API returns all BLE-Tags

HTTP Method

GET

Resource URI

/api/location/v1/bletags

Requires OAuth

N

Parameters

None.

Content Type

application/json

GET: BLE-Tag by macaddress

Description

This API returns a BLE-Tag by macaddress

HTTP Method

GET

Resource URI

/api/location/v1/bletags/:macaddress

Requires OAuth

N

Parameters*Table 110: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|------------|----------|---------|--------|-------------|--------------------|
| macaddress | Y | | String | pathReplace | BLE-Tag Macaddress |

Content Type

application/json

GET: Active BLE-Tags Count

Description

This API returns active BLE-Tags count

HTTP Method

GET

Resource URI

/api/location/v1/bletags/count

Requires OAuth

N

Parameters

None.

Content Type

application/json



Presence

- [Connected Visitors API](#), on page 226
- [Repeat Visitors API](#), on page 241
- [Dwell API](#), on page 254
- [Visitors API](#), on page 275
- [Summary API](#), on page 291
- [Clients API](#), on page 300
- [Passersby API](#), on page 311

Connected Visitors API

GET: Count of Connected Visitors for a Date

Description

This API returns the count of connected visitors seen on a given day.

HTTP Method

GET

Resource URI

/api/presence/v1/connected/count

https://<tenant-id>.cmxcisco.com/api/presence/v1/connected/count?siteId=<Site ID>&date=<date in yyyy-mm-dd>

Requires Basic Auth

N

Parameters

Table 111: Parameter Details

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|---------------------------|
| siteId | Y | — | Number | query | Site ID |
| date | Y | — | String | query | Date in yyyy-mm-dd format |

Content Type

application/json

Sample Output

3

GET: Count of Connected Visitors Seen today Until Now

Description

This API returns the count of connected visitors seen today until now.

HTTP Method

GET

Resource URI

/api/presence/v1/connected/count/today

Requires OAuth

N

Parameters*Table 112: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |

Content Type

application/json

Usage Guidelines

https://<tenant-id>.cmxcisco.com/api/presence/v1/connected/count/today?siteId=<Site ID>

Sample Output

Number

GET: Count of Connected Visitors Seen Yesterday

Description

This API returns the count of connected visitors seen yesterday.

HTTP Method

GET

Resource URI

/api/presence/v1/connected/count/yesterday

Requires OAuth

N

Parameters*Table 113: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |

Content Type

application/json

Usage Guidelines

<https://<tenant-id>.cmxcisco.com/api/presence/v1/connected/count/yesterday?siteId=<Site ID>>

Sample Output

Number

GET: Average Count of Connected Visitors Seen in Last 3 Days

Description

This API returns the average count of connected visitors seen in the last 3 days.

HTTP Method

GET

Resource URI

/api/presence/v1/connected/count/3days

Requires OAuth

N

Parameters*Table 114: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |

Content Type

application/json

Usage Guidelines

<https://<tenant-id>.cmxcisco.com/api/presence/v1/connected/count/3days?siteId=<Site ID>>

Sample Output

Number

GET: Average Count of Connected Visitors Seen in Last 7 Days

Description

This API returns the average count of connected visitors seen in the last 7 days.

HTTP Method

GET

Resource URI

/api/presence/v1/connected/count/lastweek

Requires OAuth

N

Parameters*Table 115: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |

Content Type

application/json

Usage Guidelines

<https://<tenant-id>.cmxcisco.com/api/presence/v1/connected/count/lastweek?siteId=<Site ID>>

Sample Output

Number

GET: Average Count of Connected Visitors seen in last 30 Days

Description

This API returns the average count of connected visitors seen in the last 30 days.

HTTP Method

GET

Resource URI

/api/presence/v1/connected/count/lastmonth

Requires OAuth

N

Parameters*Table 116: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |

Content Type

application/json

Usage Guidelines

https://<tenant-id>.cmxcisco.com/api/presence/v1/connected/count/lastmonth?siteId=<Site ID>

Sample Output

Number

GET: Sum of Connected Visitor Counts in Last 3 days

Description

This API returns the the sum of connected visitor counts for each day in the last 3 days.

HTTP Method

GET

Resource URI

/api/presence/v1/connected/total/3days

Requires Basic Auth

N

Parameters*Table 117: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |

Content Type

application/json

Usage Guidelines

https://<tenant-id>.cmxcisco.com/api/presence/v1/connected/total/3days?siteId=<Site ID>

Sample Output

Number

GET: Sum of Connected Visitor Counts in Last 7 days

Description

This API returns the the sum of connected visitor counts for each day in the last 7 days.

HTTP Method

GET

Resource URI

/api/presence/v1/connected/total/lastweek

Requires OAuth

N

Parameters*Table 118: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |

Content Type

application/json

Usage Guidelines

https://<tenant-id>.cmxcisco.com/api/presence/v1/connected/total/lastweek?siteId=<Site ID>

Sample Output

Number

GET: Sum of Connected Visitor Counts in Last 30 days

Description

This API returns the the sum of connected visitor counts for each day in the last 30 days.

HTTP Method

GET

Resource URI

/api/presence/v1/connected/total/lastmonth

Requires OAuth

N

Parameters*Table 119: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |

Content Type

application/json

Usage Guidelines

https://<tenant-id>.cmxcisco.com/api/presence/v1/connected/total/lastmonth?siteId=<Site ID>

Sample Output

Number

GET: Sum of Connected Visitor Counts in the Specified Date Range

Description

This API returns the sum of connected visitor counts for each day in the specified date range.

HTTP Method

GET

Resource URI

/api/presence/v1/connected/total

Requires OAuth

N

Parameters*Table 120: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|-----------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |
| startDate | Y | — | String | query | Start Date |
| endDate | Y | — | String | query | End Date |

Content Type

application/json

Usage Guidelines

<https://<tenant-id>.cmxcisco.com/api/presence/v1/connected/total/?siteId=<Site ID>&startDate=<date in yyyy-mm-dd>&endDate=<date in yyyy-mm-dd>>

Sample Output

Number

GET: Hourly Count of Connected Visitors Today

Description

This API returns the hourly count of connected visitors today until now.

HTTP Method

GET

Resource URI

/api/presence/v1/connected/hourly/today

Requires OAuth

N

Parameters*Table 121: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |

Content Type

application/json

Usage Guidelines

<https://<tenant-id>.cmxcisco.com/api/presence/v1/connected/hourly/today/?siteId=<Site ID>>

Sample Output

```
{
  "0":0,
  "1":0,
  "2":0,
  "3":0,
  "4":0,
  "5":0,
  "6":0,
  "7":0,
  "8":0,
  "9":0
}
```

GET: Hourly Count of Connected Visitors Yesterday

Description

This API returns the hourly count of connected visitors yesterday.

HTTP Method

GET

Resource URI

/api/presence/v1/connected/hourly/yesterday

Requires OAuth

N

Parameters

Table 122: Parameter Details

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |

Content Type

application/json

Usage Guidelines

<https://<tenant-id>.cmxcisco.com/api/presence/v1/connected/hourly/yesterday/?siteId=<Site ID>>

Sample Output

```
{
  "0":0,
  "1":0,
  "2":0,
}
```

```

    "3":0,
    "4":0,
    "5":0,
    "6":0,
    "7":0,
    "8":0,
    "9":0
  }

```

GET: Hourly Count of Connected Visitors in Last 3 Days

Description

This API returns the hourly count of connected visitors in the last 3 days.

HTTP Method

GET

Resource URI

/api/presence/v1/connected/hourly/3days

Requires OAuth

N

Parameters

Table 123: Parameter Details

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site Id |

Content Type

application/json

GET: Hourly Count of Connected Visitors for the Specified Day

Description

This API returns the hourly count of connected visitors for the specified date.

HTTP Method

GET

Resource URI

/api/presence/v1/connected/hourly

Requires OAuth

N

Parameters*Table 124: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site Id |
| date | N | — | String | query | Date |

Content Type

application/json

Usage Guidelines

<https://<tenant-id>.cmxcisco.com/api/presence/v1/connected/hourly/?siteId=<Site ID>&date=<date in yyyy-mm-dd>>

Sample Output

```
{
  "0": 0,
  "1": 0,
  "2": 0,
  "3": 0,
  "4": 0,
  "5": 0,
  "6": 0,
  "7": 0,
  "8": 0,
  "9": 0
}
```

GET: Daily Count of Connected Visitors for the Specified Date Range

Description

This API returns the daily count of connected visitors for the specified date range.

HTTP Method

GET

Resource URI

/api/presence/v1/connected/daily

Requires OAuth

N

Parameters*Table 125: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|-----------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |
| startDate | Y | — | String | query | Start Date |
| endDate | Y | — | String | query | End Date |

Content Type

application/json

Usage Guidelines

`https://<tenant-id>.cmxcisco.com/api/presence/v1/connected/daily/?siteId=<Site ID>&startDate=<date in yyyy-mm-dd>&endDate=<date in yyyy-mm-dd>`

Sample Output

```
{
  "2017-03-01":0,
  "2017-03-02":0,
  "2017-03-03":0,
  "2017-03-04":0,
  "2017-03-05":0,
  "2017-03-06":0,
  "2017-03-07":0,
  "2017-03-08":0,
  "2017-03-09":0,
  "2017-03-10":0
}
```

GET: Daily Count of Connected Visitors for Last 7 days

Description

This API returns the daily count of connected visitors for the last 7 days.

HTTP Method

GET

Resource URI

`/api/presence/v1/connected/daily/lastweek`

Requires OAuth

N

Parameters*Table 126: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |

Content Type

application/json

GET: Daily Count of Connected Visitors for last 30 Days

Description

This API returns the daily count of connected visitors for the last 30 days.

HTTP Method

GET

Resource URI

/api/presence/v1/connected/daily/lastmonth

Requires OAuth

N

Parameters*Table 127: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |

Content Type

application/json

GET: Daily Count of Connected Visitors by Hour for the Specified Date Range

Description

This API returns the daily count of connected visitors by hour category for the specified date range.

HTTP Method

GET

Resource URI

/api/presence/v1/connected/daily/hourcategory

Requires OAuth

N

Parameters

Table 128: Parameter Details

| Name | Required | Default | Type | Location | Description |
|-----------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |
| startDate | Y | — | String | query | Start Date |
| endDate | Y | — | String | query | End Date |

Content Type

application/json

Usage Guidelines

`https://<tenant-id>.cmxcisco.com/api/presence/v1/connected/daily/hourcategory/?siteId=<Site ID>&startDate=<date in yyyy-mm-dd>&endDate=<date in yyyy-mm-dd>`

Sample Output

```
{
  "2017-03-01":{
    "business_hours":null,
    "evening_hours":null,
    "morning_hours":null
  },
  "2017-03-02":{
    "business_hours":null,
    "evening_hours":null,
    "morning_hours":null
  },
  "2017-03-03":{
    "business_hours":null,
    "evening_hours":null,
    "morning_hours":null
  },
  "2017-03-04":{
    "business_hours":null,
    "evening_hours":null,
    "morning_hours":null
  },
  "2017-03-05":{
    "business_hours":null,
    "evening_hours":null,
    "morning_hours":null
  },
  "2017-03-06":{
    "business_hours":null,
    "evening_hours":null,
    "morning_hours":null
  }
}
```

```
    },
    "2017-03-07":{
      "business_hours":null,
      "evening_hours":null,
      "morning_hours":null
    },
    "2017-03-08":{
      "business_hours":null,
      "evening_hours":null,
      "morning_hours":null
    },
    "2017-03-09":{
      "business_hours":null,
      "evening_hours":null,
      "morning_hours":null
    },
    "2017-03-10":{
      "business_hours":null,
      "evening_hours":null,
      "morning_hours":null
    }
  }
}
```

Repeat Visitors API

GET: Average Count of Repeat Visitors for Last 7 Days

Description

This API returns the average count of repeat visitors seen in last 7 days.

HTTP Method

GET

Resource URI

/api/presence/v1/repeatvisitors/average/lastweek

Requires OAuth

N

Parameters

Table 129: Parameter Details

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |

Content Type

application/json

GET: Average Count of Repeat Visitors for Last 30 days

Description

This API returns the average count of repeat visitors seen in last 30 days.

HTTP Method

GET

Resource URI

/api/presence/v1/repeatvisitors/average/lastmonth

Requires OAuth

N

Parameters*Table 130: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |

Content Type

application/json

GET: Sum of Repeat Visitor Counts for Last 3 days

Description

This API returns the sum of repeat visitor counts for each day in last 3 days.

HTTP Method

GET

Resource URI

/api/presence/v1/repeatvisitors/count/3days

Requires OAuth

N

Parameters*Table 131: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |

Content Type

application/json

GET: Sum of Repeat Visitor Counts for Last 7 days

Description

This API returns the sum of repeat visitor counts for each day in last 7 days.

HTTP Method

GET

Resource URI

/api/presence/v1/repeatvisitors/count/lastweek

Requires OAuth

N

Parameters

Table 132: Parameter Details

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |

Content Type

application/json

GET: Sum of Repeat Visitor Counts for Last 30 days

Description

This API returns the sum of repeat visitor counts for each day in last 30 days.

HTTP Method

GET

Resource URI

/api/presence/v1/repeatvisitors/count/lastmonth

Requires OAuth

N

Parameters

Table 133: Parameter Details

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |

Content Type

application/json

GET: Hourly Count of Repeat Visitors for a Day

Description

This API returns the hourly count of repeat visitors for the specified date.

HTTP Method

GET

Resource URI

/api/presence/v1/repeatvisitors/hourly

Requires OAuth

N

Parameters

Table 134: Parameter Details

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |
| date | Y | — | String | query | Date |

Content Type

application/json

GET: Hourly Count of Repeat Visitors Today

Description

This API returns the hourly count of repeat visitors seen today until now.

HTTP Method

GET

Resource URI

/api/presence/v1/repeatvisitors/hourly/today

Requires OAuth

N

Parameters*Table 135: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |

Content Type

application/json

GET: Hourly Count of Repeat Visitors Yesterday

Description

This API returns the hourly count of repeat visitors seen yesterday.

HTTP Method

GET

Resource URI

/api/presence/v1/repeatvisitors/hourly/yesterday

Requires OAuth

N

Parameters*Table 136: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |

Content Type

application/json

GET: Count of Repeat Visitors for a Date or Date Range

Description

This API returns the count of repeat visitors seen on a given day or date range.

HTTP Method

GET

Resource URI

/api/presence/v1/repeatvisitors/count

Requires OAuth

N

Parameters

Table 137: Parameter Details

| Name | Required | Default | Type | Location | Description |
|-----------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |
| date | Y | — | String | query | Date |
| startDate | Y | — | String | query | Start Date |
| endDate | Y | — | String | query | End Date |

Content Type

application/json

Usage Guidelines

https://<tenant-id>.cmxcisco.com/api/presence/v1/repeatvisitors/count/?siteId=<Site ID>&startDate=<date in yyyy-mm-dd>&endDate=<date in yyyy-mm-dd>

Sample Output

```
{
  "DAILY": 0,
  "WEEKLY": 0,
  "OCCASIONAL": 0,
  "FIRST_TIME": 0,
  "YESTERDAY": 0
}
```

GET: Count of Repeat Visitors for Today

Description

This API returns the count of repeat visitors seen today until now.

HTTP Method

GET

Resource URI

/api/presence/v1/repeatvisitors/count/today

Requires OAuth

N

Parameters*Table 138: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |

Content Type

application/json

GET: Count of Repeat Visitors for Yesterday

Description

This API returns the count of repeat visitors seen yesterday.

HTTP Method

GET

Resource URI

/api/presence/v1/repeatvisitors/count/yesterday

Requires OAuth

N

Parameters*Table 139: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |

Content Type

application/json

GET: Average Count of Repeat Visitors for Last 3 days

Description

This API returns the average count of repeat visitors seen in last 3 days.

HTTP Method

GET

Resource URI

/api/presence/v1/repeatvisitors/average/3days

Requires OAuth

N

Parameters*Table 140: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |

Content Type

application/json

GET: Average Count of Repeat Visitors for Specified Date Range

Description

This API returns the average count of repeat visitors seen for the specified date range.

HTTP Method

GET

Resource URI

/api/presence/v1/repeatvisitors/average

Requires OAuth

N

Parameters*Table 141: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|-----------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |
| startDate | Y | — | String | query | Start Date |
| endDate | Y | — | String | query | End Date |

Content Type

application/json

Usage Guidelines

https://<tenant-id>.cmxcisco.com/api/presence/v1/repeatvisitors/average/?siteId=<Site ID>&startDate=<date in yyyy-mm-dd>&endDate=<date in yyyy-mm-dd>

Sample Output

```
{
  "DAILY":0,
  "WEEKLY":0,
  "OCCASIONAL":0,
  "FIRST_TIME":0,
  "YESTERDAY":0
}
```

GET: Hourly Count of Repeat Visitors for Last 3 Days

Description

This API returns the hourly count of repeat visitors for the last 3 days.

HTTP Method

GET

Resource URI

/api/presence/v1/repeatvisitors/hourly/3days

Requires OAuth

N

Parameters*Table 142: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |

Content Type

application/json

GET: Repeat Visitor Summary for a Day

Description

This API returns the repeat visitor summary for the specified date.

HTTP Method

GET

Resource URI

/api/presence/v1/repeatvisitors/daysummary

Requires OAuth

N

Parameters*Table 143: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |
| date | Y | — | String | query | Date |

Content Type

application/json

GET: Repeat Visitor Summary for a Week

Description

This API returns the repeat visitor summary for the week of specified date.

HTTP Method

GET

Resource URI

/api/presence/v1/repeatvisitors/weeksummary

Requires OAuth

N

Parameters*Table 144: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |
| date | Y | — | String | query | Date |

Content Type

application/json

GET: Repeat Visitor Summary for a Month

Description

This API returns the repeat visitor summary for the month of specified date.

HTTP Method

GET

Resource URI

/api/presence/v1/repeatvisitors/monthsummary

Requires OAuth

N

Parameters*Table 145: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |
| date | Y | — | String | query | Date |

Content Type

application/json

GET: Daily Count of Repeat Visitors for Specified Date Range

Description

This API returns the daily count of repeat visitors for the specified date range.

HTTP Method

GET

Resource URI

/api/presence/v1/repeatvisitors/daily

Requires OAuth

N

Parameters*Table 146: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|-----------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |
| startDate | Y | — | String | query | Start Date |
| endDate | Y | — | String | query | End Date |

Content Type

application/json

Usage Guidelines

`https://<tenant-id>.cmxcisco.com/api/presence/v1/repeatvisitors/daily/?siteId=<Site ID>&startDate=<date in yyyy-mm-dd>&endDate=<date in yyyy-mm-dd>`

Sample Output

```
{
  "2017-03-01":null,
  "2017-03-02":null,
  "2017-03-03":null,
  "2017-03-04":null,
  "2017-03-05":null,
  "2017-03-06":null,
  "2017-03-07":null,
  "2017-03-08":null,
  "2017-03-09":null,
  "2017-03-10":{
    "DAILY":0,
    "WEEKLY":0,
    "OCCASIONAL":0,
    "FIRST_TIME":0,
    "YESTERDAY":0
  }
}
```

GET: Daily Count of Repeat Visitors for Last 7 Days

Description

This API returns the daily count of repeat visitors for the last 7 days.

HTTP Method

GET

Resource URI

/api/presence/v1/repeatvisitors/daily/lastweek

Requires OAuth

N

Parameters*Table 147: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |

Content Type

application/json

GET: Daily Count of Repeat Visitors for Last 30 days

Description

This API returns the daily count of repeat visitors for the last 30 days.

HTTP Method

GET

Resource URI

/api/presence/v1/repeatvisitors/daily/lastmonth

Requires OAuth

N

Parameters*Table 148: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |

Content Type

application/json

Dwell API

GET: Count of Visitors by Dwell Level for a Date or Date Range

Description

This API returns the count of visitors categorized by dwell level seen on a given day or date range.

HTTP Method

GET

Resource URI

/api/presence/v1/dwell/count

Requires OAuth

N

Parameters

Table 149: Parameter Details

| Name | Required | Default | Type | Location | Description |
|-----------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |
| date | Y | — | String | query | Date |
| startDate | Y | — | String | query | Start Date |
| endDate | N | — | String | query | End Date |

Content Type

application/json

Usage Guidelines

<https://<tenant-id>.cmxcisco.com/api/presence/v1/dwell/count/?siteId=<Site ID>&date=<date in yyyy-mm-dd>>

Sample Output

```
{
  "FIVE_TO_THIRTY_MINUTES":0,
  "THIRTY_TO_SIXTY_MINUTES":0,
  "ONE_TO_FIVE_HOURS":0,
  "FIVE_TO_EIGHT_HOURS":0,
  "EIGHT_PLUS_HOURS":0
}
```

GET: Count of Visitors by Dwell Level for Today

Description

This API returns the count of visitors categorized by dwell level seen today until now.

HTTP Method

GET

Resource URI

/api/presence/v1/dwell/count/today

Requires OAuth

N

Parameters

Table 150: Parameter Details

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |

Content Type

application/json

GET: Count of Visitors by Dwell Level for Yesterday

Description

This API returns the count of visitors categorized by dwell level seen yesterday.

HTTP Method

GET

Resource URI

/api/presence/v1/dwell/count/yesterday

Requires OAuth

N

Parameters*Table 151: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |

Content Type

application/json

GET: Count of Visitors by Dwell Level for Last 3 Days

Description

This API returns the count of visitors categorized by dwell level seen in the last 3 days.

HTTP Method

GET

Resource URI

/api/presence/v1/dwell/count/3days

Requires OAuth

N

Parameters*Table 152: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |

Content Type

application/json

GET: Count of Visitors by Dwell Level for Last 7 Days

Description

This API returns the count of visitors categorized by dwell level seen in the last 7 days.

HTTP Method

GET

Resource URI

/api/presence/v1/dwell/count/lastweek

Requires OAuth

N

Parameters

Table 153: Parameter Details

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |

Content Type

application/json

GET: Count of Visitors by Dwell Level for Last 30 Days

Description

This API returns the count of visitors categorized by dwell level seen in the last 30 days.

HTTP Method

GET

Resource URI

/api/presence/v1/dwell/count/lastmonth

Requires OAuth

N

Parameters

Table 154: Parameter Details

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |

Content Type

application/json

GET: Average Count of Visitors by Dwell Level for Last 7 Days

Description

This API returns the average count of visitors categorized by dwell level seen in the last 7 days.

HTTP Method

GET

Resource URI

/api/presence/v1/dwell/averagecount/lastweek

Requires OAuth

N

Parameters

Table 155: Parameter Details

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |

Content Type

application/json

GET: Average Count of Visitors by Dwell Level for Last 30 Days

Description

This API returns the average count of visitors categorized by dwell level seen in the last 30 days.

HTTP Method

GET

Resource URI

/api/presence/v1/dwell/averagecount/lastmonth

Requires OAuth

N

Parameters*Table 156: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |

Content Type

application/json

GET: Hourly Count of Visitors by Dwell Level for a Specific Day

Description

This API returns the hourly count of visitors categorized by dwell level seen in the specified date.

HTTP Method

GET

Resource URI

/api/presence/v1/dwell/hourly

Requires OAuth

N

Parameters*Table 157: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |
| date | Y | — | String | query | Date |

Content Type

application/json

GET: Hourly Count of Visitors by Dwell Level for Today

Description

This API returns the hourly count of visitors categorized by dwell level seen today until now.

HTTP Method

GET

Resource URI

/api/presence/v1/dwell/hourly/today

Requires OAuth

N

Parameters*Table 158: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |

Content Type

application/json

GET: Average Visitor Dwell Time by Dwell Level for Last 7 Days

Description

This API returns the average visitor dwell time in minutes categorized by dwell level for last 7 days.

HTTP Method

GET

Resource URI

/api/presence/v1/dwell/averagebylevel/lastweek

Requires OAuth

N

Parameters*Table 159: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |

Content Type

application/json

GET: Average Visitor Dwell Time by Dwell Level for Last 30 Days

Description

This API returns the average visitor dwell time in minutes categorized by dwell level for last 30 days.

HTTP Method

GET

Resource URI

/api/presence/v1/dwell/averagebylevel/lastmonth

Requires OAuth

N

Parameters*Table 160: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |

Content Type

application/json

GET: Daily Average Visitor Dwell Time by Dwell Level for a Specific Date Range

Description

This API returns the daily average visitor dwell time in minutes categorized by dwell level for the specified date range.

HTTP Method

GET

Resource URI

/api/presence/v1/dwell/dailyaverage

Requires OAuth

N

Parameters*Table 161: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|-----------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |
| startDate | Y | — | String | query | Start Date |
| endDate | Y | — | String | query | End Date |

Content Type

application/json

Usage Guidelines

<https://<tenant-id>.cmxcisco.com/api/presence/v1/dwell/dailyaverage/?siteId=<Site ID>&date=<date in yyyy-mm-dd>>

Sample Output

```
{
  "2017-03-01":null,
  "2017-03-02":null,
  "2017-03-03":null,
  "2017-03-04":null,
  "2017-03-05":null,
  "2017-03-06":null,
  "2017-03-07":null,
  "2017-03-08":null,
  "2017-03-09":null,
  "2017-03-10":{
    "FIVE_TO_THIRTY_MINUTES":0.0,
    "THIRTY_TO_SIXTY_MINUTES":0.0,
    "ONE_TO_FIVE_HOURS":0.0,
    "FIVE_TO_EIGHT_HOURS":0.0,
    "EIGHT_PLUS_HOURS":0.0
  }
}
```

GET: Daily Average Visitor Dwell Time by Dwell Level for Last 7 Days

Description

This API returns the daily average visitor dwell time in minutes categorized by dwell level for the last 7 days.

HTTP Method

GET

Resource URI

/api/presence/v1/dwell/dailyaverage/lastweek

Requires OAuth

N

Parameters

Table 162: Parameter Details

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |

Content Type

application/json

GET: Daily Average Visitor Dwell Time by Dwell Level for Last 30 Days

Description

This API returns the daily average visitor dwell time in minutes categorized by dwell level for the last 30 days.

HTTP Method

GET

Resource URI

/api/presence/v1/dwell/dailyaverage/lastmonth

Requires OAuth

N

Parameters

Table 163: Parameter Details

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |

Content Type

application/json

GET: Hourly Count of Visitors by Dwell level for Yesterday

Description

This API returns the hourly count of visitors categorized by dwell level seen yesterday.

HTTP Method

GET

Resource URI

/api/presence/v1/dwell/hourly/yesterday

Requires OAuth

N

Parameters

Table 164: Parameter Details

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site Id |

Content Type

application/json

GET: Hourly Count of Visitors by Dwell Level for Last 3 Days

Description

This API returns the hourly count of visitors categorized by dwell level seen in the last 3 days.

HTTP Method

GET

Resource URI

/api/presence/v1/dwell/hourly/3days

Requires OAuth

N

Parameters*Table 165: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |

Content Type

application/json

GET: Daily Count of Visitors by Dwell Level for a Specific Date Range

Description

This API returns the daily count of visitors categorized by dwell level seen during the specified date range

HTTP Method

GET

Resource URI

/api/presence/v1/dwell/daily

Requires OAuth

N

Parameters*Table 166: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|-----------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |
| startDate | Y | — | String | query | Start Date |
| endDate | Y | — | String | query | End Date |

Content Type

application/json

Usage Guidelines

<https://<tenant-id>.cmxcisco.com/api/presence/v1/dwell/daily/?siteId=<Site ID>&date=<date in yyyy-mm-dd>>

Sample Output

```
{
  "2017-03-01": {
    "FIVE_TO_THIRTY_MINUTES": 0,
    "THIRTY_TO_SIXTY_MINUTES": 0,
    "ONE_TO_FIVE_HOURS": 0,
    "FIVE_TO_EIGHT_HOURS": 0,
    "EIGHT_PLUS_HOURS": 0
  },
  "2017-03-02": {
    "FIVE_TO_THIRTY_MINUTES": 0,
    "THIRTY_TO_SIXTY_MINUTES": 0,
    "ONE_TO_FIVE_HOURS": 0,
    "FIVE_TO_EIGHT_HOURS": 0,
    "EIGHT_PLUS_HOURS": 0
  },
  "2017-03-03": {
    "FIVE_TO_THIRTY_MINUTES": 0,
    "THIRTY_TO_SIXTY_MINUTES": 0,
    "ONE_TO_FIVE_HOURS": 0,
    "FIVE_TO_EIGHT_HOURS": 0,
    "EIGHT_PLUS_HOURS": 0
  },
  "2017-03-04": {
    "FIVE_TO_THIRTY_MINUTES": 0,
    "THIRTY_TO_SIXTY_MINUTES": 0,
    "ONE_TO_FIVE_HOURS": 0,
    "FIVE_TO_EIGHT_HOURS": 0,
    "EIGHT_PLUS_HOURS": 0
  },
  "2017-03-05": {
    "FIVE_TO_THIRTY_MINUTES": 0,
    "THIRTY_TO_SIXTY_MINUTES": 0,
    "ONE_TO_FIVE_HOURS": 0,
    "FIVE_TO_EIGHT_HOURS": 0,
    "EIGHT_PLUS_HOURS": 0
  },
  "2017-03-06": {
    "FIVE_TO_THIRTY_MINUTES": 0,
    "THIRTY_TO_SIXTY_MINUTES": 0,
    "ONE_TO_FIVE_HOURS": 0,
    "FIVE_TO_EIGHT_HOURS": 0,
    "EIGHT_PLUS_HOURS": 0
  },
  "2017-03-07": {
    "FIVE_TO_THIRTY_MINUTES": 0,
    "THIRTY_TO_SIXTY_MINUTES": 0,
    "ONE_TO_FIVE_HOURS": 0,
    "FIVE_TO_EIGHT_HOURS": 0,
    "EIGHT_PLUS_HOURS": 0
  },
  "2017-03-08": {
    "FIVE_TO_THIRTY_MINUTES": 0,
    "THIRTY_TO_SIXTY_MINUTES": 0,
    "ONE_TO_FIVE_HOURS": 0,
    "FIVE_TO_EIGHT_HOURS": 0,
    "EIGHT_PLUS_HOURS": 0
  },
  "2017-03-09": {
    "FIVE_TO_THIRTY_MINUTES": 0,
    "THIRTY_TO_SIXTY_MINUTES": 0,
    "ONE_TO_FIVE_HOURS": 0,
    "FIVE_TO_EIGHT_HOURS": 0,
  }
}
```

```

      "EIGHT_PLUS_HOURS":0
    },
    "2017-03-10":{
      "FIVE_TO_THIRTY_MINUTES":0,
      "THIRTY_TO_SIXTY_MINUTES":0,
      "ONE_TO_FIVE_HOURS":0,
      "FIVE_TO_EIGHT_HOURS":0,
      "EIGHT_PLUS_HOURS":0
    }
  }
}

```

GET: Daily Count of Visitors by Dwell Level for Last 7 Days

Description

This API returns the daily count of visitors categorized by dwell level seen during the last 7 days.

HTTP Method

GET

Resource URI

/api/presence/v1/dwell/daily/lastweek

Requires OAuth

N

Parameters

Table 167: Parameter Details

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |

Content Type

application/json

GET: Daily Count of Visitors by Dwell Level for Last 30 Days

Description

This API returns the daily count of visitors categorized by dwell level seen during the last 30 days.

HTTP Method

GET

Resource URI

/api/presence/v1/dwell/daily/lastmonth

Requires OAuth

N

Parameters*Table 168: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |

Content Type

application/json

GET: Average Visitor Dwell Time for the Specific Date or Date Range

Description

This API returns the average visitor dwell time in minutes for the specified date or date range.

HTTP Method

GET

Resource URI

/api/presence/v1/dwell/average

Requires OAuth

N

Parameters*Table 169: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|-----------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |
| startDate | Y | — | String | query | Start Date |
| endDate | Y | — | String | query | End Date |
| date | N | — | String | query | Date |

Content Type

application/json

Usage Guidelines

https://<tenant-id>.cmxcisco.com/api/presence/v1/dwell/average/?siteId=<Site ID>&date=<date in yyyy-mm-dd>

Sample Output

0.0

GET: Average Visitor Dwell Time for Today

Description

This API returns the average visitor dwell time in minutes for today until now.

HTTP Method

GET

Resource URI

/api/presence/v1/dwell/average/today

Requires OAuth

N

Parameters*Table 170: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |

Content Type

application/json

GET: Average Visitor Dwell Time for Yesterday

Description

This API returns the average visitor dwell time in minutes for yesterday.

HTTP Method

GET

Resource URI

/api/presence/v1/dwell/average/yesterday

Requires OAuth

N

Parameters

Table 171: Parameter Details

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |

Content Type

application/json

GET: Average Visitor Dwell Time for Last 3 Days

Description

This API returns the average visitor dwell time in minutes for last 3 days.

HTTP Method

GET

Resource URI

/api/presence/v1/dwell/average/3days

Requires OAuth

N

Parameters

Table 172: Parameter Details

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |

Content Type

application/json

GET: Average Visitor Dwell Time for Last 7 Days

Description

This API returns the average visitor dwell time in minutes for the last 7 days.

HTTP Method

GET

Resource URI

/api/presence/v1/dwell/average/lastweek

Requires OAuth

N

Parameters

Table 173: Parameter Details

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |

Content Type

application/json

GET: Average Visitor Dwell Time for Last 30 Days

Description

This API returns the average visitor dwell time in minutes for the last 30 days.

HTTP Method

GET

Resource URI

/api/presence/v1/dwell/average/lastmonth

Requires OAuth

N

Parameters*Table 174: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |

Content Type

application/json

GET: Average Visitor Dwell Time by Dwell Level for a Specific Date or Date Range

Description

This API returns the average visitor dwell time in minutes categorized by dwell level for the specified date or date range.

HTTP Method

GET

Resource URI

/api/presence/v1/dwell/averagebylevel

Requires OAuth

N

Parameters*Table 175: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|-----------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |
| date | Y | — | String | query | Date |
| startDate | Y | — | String | query | Start Date |
| endDate | N | — | String | query | End Date |

Content Type

application/json

Usage Guidelines

https://<tenant-id>.cmxcisco.com/api/presence/v1/dwell/averagebylevel/?siteId=<Site ID>&date=<date in yyyy-mm-dd>

Sample Output

```
{
  "FIVE_TO_THIRTY_MINUTES":0.0,
  "THIRTY_TO_SIXTY_MINUTES":0.0,
  "ONE_TO_FIVE_HOURS":0.0,
  "FIVE_TO_EIGHT_HOURS":0.0,
  "EIGHT_PLUS_HOURS":0.0
}
```

GET: Average Visitor Dwell Time by Dwell Level for Today

Description

This API returns the average visitor dwell time in minutes categorized by dwell level for today until now.

HTTP Method

GET

Resource URI

/api/presence/v1/dwell/averagebylevel/today

Requires OAuth

N

Parameters

Table 176: Parameter Details

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |

Content Type

application/json

GET: Average Visitor Dwell Time by Dwell Level for Yesterday

Description

This API returns the average visitor dwell time in minutes categorized by dwell level for yesterday.

HTTP Method

GET

Resource URI

/api/presence/v1/dwell/averagebylevel/yesterday

Requires OAuth

N

Parameters

Table 177: Parameter Details

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |

Content Type

application/json

GET: Average Visitor Dwell Time by Dwell Level for Last 3 days

Description

This API returns the average visitor dwell time in minutes categorized by dwell level for last 3 days.

HTTP Method

GET

Resource URI

/api/presence/v1/dwell/averagebylevel/3days

Requires OAuth

N

Parameters

Table 178: Parameter Details

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |

Content Type

application/json

Visitors API

GET: Peak Hour of Visitors Today

Description

This API returns the hour that had peak visitors today.

HTTP Method

GET

Resource URI

/api/presence/v1/visitor/today/peakhour

Requires OAuth

N

Parameters

Table 179: Parameter Details

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |

Content Type

application/json

GET: Count of Visitors Today

Description

This API returns the count of visitors seen today until now.

HTTP Method

GET

Resource URI

/api/presence/v1/visitor/count/today

Requires OAuth

N

Parameters*Table 180: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |

Content Type

application/json

GET: Count of Visitors Yesterday

Description

This API returns the count of visitors seen yesterday.

HTTP Method

GET

Resource URI

/api/presence/v1/visitor/count/yesterday

Requires OAuth

N

Parameters*Table 181: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |

Content Type

application/json

GET: Count of Unique Visitors for Last 3 Days

Description

This API returns the count of unique visitors seen in the last 3 days.

HTTP Method

GET

Resource URI

/api/presence/v1/visitor/count/3days

Requires OAuth

N

Parameters*Table 182: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |

Content Type

application/json

GET: Count of Unique Visitors for Last Week

Description

This API returns the count of unique visitors seen in the last 7 days.

HTTP Method

GET

Resource URI

/api/presence/v1/visitor/count/lastweek

Requires OAuth

N

Parameters*Table 183: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |

Content Type

application/json

GET: Count of Unique Visitors for Last Month

Description

This API returns the count of unique visitors seen in the last 30 days.

HTTP Method

GET

Resource URI

/api/presence/v1/visitor/count/lastmonth

Requires OAuth

N

Parameters

Table 184: Parameter Details

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |

Content Type

application/json

GET: Count of Unique Visitors for a Date/Date Range

Description

This API returns the count of unique visitors seen on a day or range of dates.

HTTP Method

GET

Resource URI

/api/presence/v1/visitor/count

Requires OAuth

N

Parameters*Table 185: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|-----------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |
| startDate | Y | — | String | query | Start Date |
| endDate | Y | — | String | query | End Date |
| date | N | — | String | query | Date |

Content Type

application/json

Usage Guidelines

`https://<tenant-id>.cmxcisco.com/api/presence/v1/visitor/count/?siteId=<Site ID>&date=<date in yyyy-mm-dd>`

Sample Output

107

GET: Sum of Visitor Counts for a Date Range

Description

This API returns the sum of visitor counts for each day in the specified date range.

HTTP Method

GET

Resource URI

/api/presence/v1/visitor/total

Requires OAuth

N

Parameters*Table 186: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|-----------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |
| startDate | Y | — | String | query | Start date |

| Name | Required | Default | Type | Location | Description |
|---------|----------|---------|--------|----------|-------------|
| endDate | Y | — | String | query | End date |

Content Type

application/json

GET: Sum of Visitor Counts for the Last 3 Days

Description

This API returns the sum of visitor counts for each day in the last 3 days.

HTTP Method

GET

Resource URI

/api/presence/v1/visitor/total/3days

Requires OAuth

N

Parameters*Table 187: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |

Content Type

application/json

GET: Sum of Visitor Counts for the Last Week

Description

This API returns the sum of visitor counts for each day in the last 7 days.

HTTP Method

GET

Resource URI

/api/presence/v1/visitor/total/lastweek

Requires OAuth

N

Parameters

Table 188: Parameter Details

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |

Content Type

application/json

GET: Sum of Visitor Counts for the Last Month

Description

This API returns the sum of visitor counts for each day in the last 30 days.

HTTP Method

GET

Resource URI

/api/presence/v1/visitor/total/lastmonth

Requires OAuth

N

Parameters

Table 189: Parameter Details

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |

Content Type

application/json

GET: Hourly Count of Visitors Today

Description

This API returns the hourly count of visitors today until now.

HTTP Method

GET

Resource URI

/api/presence/v1/visitor/hourly/today

Requires OAuth

N

Parameters

Table 190: Parameter Details

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |

Content Type

application/json

GET: Hourly Count of Visitors Yesterday

Description

This API returns the hourly count of visitors yesterday.

HTTP Method

GET

Resource URI

/api/presence/v1/visitor/hourly/yesterday

Requires OAuth

N

Parameters*Table 191: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site Id |

Content Type

application/json

GET: Hourly Count of Visitors for Last 3 Days

Description

This API returns the hourly count of visitors for the last 3 days including today.

HTTP Method

GET

Resource URI

/api/presence/v1/visitor/hourly/3days

Requires OAuth

N

Parameters*Table 192: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site Id |

Content Type

application/json

GET: Hourly Count of Visitors for a Day

Description

This API returns the hourly count of visitors for the specified date.

HTTP Method

GET

Resource URI

/api/presence/v1/visitor/hourly

Requires OAuth

N

Parameters*Table 193: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site Id |
| date | Y | — | String | query | Date |

Content Type

application/json

GET: Daily Count of Visitors for a Date Range

Description

This API returns the daily count of unique visitors for the specified date range.

HTTP Method

GET

Resource URI

/api/presence/v1/visitor/daily

Requires OAuth

N

Parameters*Table 194: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|-----------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site Id |
| startDate | Y | — | String | query | Start Date |
| endDate | Y | — | String | query | End Date |

Content Type

application/json

Usage Guidelines

https://<tenant-id>.cmxcisco.com/api/presence/v1/connected/hourly/?siteId=<Site ID>&date=<date in yyyy-mm-dd>

Sample Output

```
{
  "0":0,
  "1":0,
  "2":0,
  "3":0,
  "4":0,
  "5":0,
  "6":0,
  "7":0,
  "8":0,
  "9":0
}
```

GET: Daily Count of Visitors for Last Week

Description

This API returns the daily count of visitors for the last 7 days including today.

HTTP Method

GET

Resource URI

/api/presence/v1/visitor/daily/lastweek

Requires OAuth

N

Parameters*Table 195: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |

Content Type

application/json

GET: Daily Count of Visitors for Last Month

Description

This API returns the daily count of visitors for the last 30 days including today.

HTTP Method

GET

Resource URI

/api/presence/v1/visitor/daily/lastmonth

Requires OAuth

N

Parameters

Table 196: Parameter Details

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |

Content Type

application/json

GET: Daily Count of Visitors by Hour Category for a Date Range

Description

This API returns the daily count of visitors seen during morning, business, evening hours for the specified date range.

HTTP Method

GET

Resource URI

/api/presence/v1/visitor/daily/hourcategory

Requires OAuth

N

Parameters

Table 197: Parameter Details

| Name | Required | Default | Type | Location | Description |
|-----------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |
| startDate | Y | — | String | query | Start Date |
| endDate | Y | — | String | query | End Date |

Content Type

application/json

Usage Guidelines

<https://<tenant-id>.cmxcisco.com/api/presence/v1/visitor/daily/hourcategory/?siteId=<Site ID>&date=<date in yyyy-mm-dd>>

Sample Output

```
{
  "2017-03-01": {
    "business_hours": 0,
    "evening_hours": 0,
    "morning_hours": 0
  },
  "2017-03-02": {
    "business_hours": null,
    "evening_hours": null,
    "morning_hours": null
  },
  "2017-03-03": {
    "business_hours": null,
    "evening_hours": null,
    "morning_hours": null
  },
  "2017-03-04": {
    "business_hours": null,
    "evening_hours": null,
    "morning_hours": null
  },
  "2017-03-05": {
    "business_hours": null,
    "evening_hours": null,
    "morning_hours": null
  },
  "2017-03-06": {
    "business_hours": null,
    "evening_hours": null,
    "morning_hours": null
  },
  "2017-03-07": {
    "business_hours": null,
    "evening_hours": null,
    "morning_hours": null
  },
  "2017-03-08": {
    "business_hours": null,
    "evening_hours": null,
    "morning_hours": null
  }
}
```

```

    "morning_hours":null
  },
  "2017-03-09":{
    "business_hours":null,
    "evening_hours":null,
    "morning_hours":null
  },
  "2017-03-10":{
    "business_hours":null,
    "evening_hours":null,
    "morning_hours":null
  }
}

```

GET: Visitor Summary for a Day

Description

This API returns a summary of visitor traffic for the specified date.

HTTP Method

GET

Resource URI

/api/presence/v1/visitor/daysummary

Requires OAuth

N

Parameters

Table 198: Parameter Details

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |
| date | Y | — | String | query | Date |

Content Type

application/json

GET: Visitor Summary for Week

Description

This API returns a summary of visitor traffic for the week of the specified date.

HTTP Method

GET

Resource URI

/api/presence/v1/visitor/weeksummary

Requires OAuth

N

Parameters*Table 199: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |
| date | Y | — | String | query | Date |

Content Type

application/json

GET: Visitor Summary for Month

Description

This API returns a summary of visitor traffic for the month of the specified date.

HTTP Method

GET

Resource URI

/api/presence/v1/visitor/monthsummary

Requires OAuth

N

Parameters*Table 200: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |
| date | Y | — | String | query | Date |

Content Type

application/json

Summary API

GET: Site KPI Summary for Specified Date or Date Range

Description

This API returns the KPI summary for the given site and specified date or date range.

HTTP Method

GET

Resource URI

/api/presence/v1/kpisummary

Requires OAuth

N

Parameters

Table 201: Parameter Details

| Name | Required | Default | Type | Location | Description |
|-----------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |
| date | N | — | String | query | Date |
| startDate | Y | — | String | query | Start Date |
| endDate | Y | — | String | query | End Date |

Content Type

application/json

Usage Guidelines

<https://<tenant-id>.cmxcisco.com/api/presence/v1/kpisummary?siteId=<Site ID>&startDate=<date in yyyy-mm-dd>&endDate=<date in yyyy-mm-dd>>

Sample Output

```
{
  "visitorCount":107,
  "totalPasserbyCount":0,
  "totalVisitorCount":100,
  "totalConnectedCount":0,
  "connectedPercentage":0,
  "conversionRate":100,
  "averageDwell":0.0,
  "averageDwellByLevels":{
```

```

    "FIVE_TO_THIRTY_MINUTES":{
      "average":0.0,
      "count":0
    },
    "THIRTY_TO_SIXTY_MINUTES":{
      "average":0.0,
      "count":0
    },
    "ONE_TO_FIVE_HOURS":{
      "average":0.0,
      "count":0
    },
    "FIVE_TO_EIGHT_HOURS":{
      "average":0.0,
      "count":0
    },
    "EIGHT_PLUS_HOURS":{
      "average":0.0,
      "count":0
    }
  },
  "topManufacturers":null,
  "peakSummary":null,
  "peakWeekSummary":{
    "peakHour":15,
    "peakDate":"2017-02-28",
    "peakWeek":0,
    "interval":"WEEK",
    "peakHourCount":49,
    "averageHourlyCount":25.01388888888889,
    "hourlyCounts":{
      "0":13,
      "1":13,
      "2":12,
      "3":11,
      "4":12,
      "5":13,
      "6":13,
      "7":15,
      "8":14,
      "9":15,
      "10":21,
      "11":26,
      "12":29,
      "13":31,
      "14":38,
      "15":44,
      "16":46,
      "17":41,
      "18":44,
      "19":38,
      "20":32,
      "21":28,
      "22":25,
      "23":25
    },
    "maxHour":15,
    "maxDay":1,
    "peakDayCount":112,
    "peakHourDay":"2017-02-27"
  },
  "peakMonthSummary":{
    "peakHour":16,
    "peakDate":"2017-03-01",

```



```
"peakWeek":9,
"interval":"MONTH",
"peakHourCount":45,
"averageHourlyCount":25.5,
"hourlyCounts":{
  "0":20,
  "1":18,
  "2":14,
  "3":13,
  "4":14,
  "5":17,
  "6":18,
  "7":18,
  "8":19,
  "9":15,
  "10":23,
  "11":22,
  "12":31,
  "13":28,
  "14":37,
  "15":41,
  "16":45,
  "17":43,
  "18":42,
  "19":33,
  "20":29,
  "21":28,
  "22":26,
  "23":18
},
"maxHour":16,
"maxDay":3,
"peakDayCount":100,
"peakHourDay":"2017-03-01"
}
```

GET: Site KPI Summary for Today

Description

This API returns the KPI summary for the given site today until now.

HTTP Method

GET

Resource URI

/api/presence/v1/kpisummary/today

Requires OAuth

N

Parameters*Table 202: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |

Content Type

application/json

GET: Site KPI Summary for Yesterday

Description

This API returns the KPI summary for the given site yesterday.

HTTP Method

GET

Resource URI

/api/presence/v1/kpisummary/yesterday

Requires OAuth

N

Parameters*Table 203: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |

Content Type

application/json

GET: Site KPI Summary for Last 3 Days

Description

This API returns the KPI summary for the given site for the last 3 days.

HTTP Method

GET

Resource URI

/api/presence/v1/kpisummary/3days

Requires OAuth

N

Parameters

Table 204: Parameter Details

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |

Content Type

application/json

GET: Site KPI Summary for last 7 days

Description

This API returns the KPI summary for the given site for the last 7 days.

HTTP Method

GET

Resource URI

/api/presence/v1/kpisummary/lastweek

Requires OAuth

N

Parameters

Table 205: Parameter Details

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |

Content Type

application/json

GET: Site KPI Summary for Last 30 Days

Description

This API returns the KPI summary for the given site for the last 30 days.

HTTP Method

GET

Resource URI

/api/presence/v1/kpisummary/lastmonth

Requires OAuth

N

Parameters

Table 206: Parameter Details

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |

Content Type

application/json

GET: Site Insights for Specified Date or Date Range

Description

This API returns the insights for the given site and specified date or date range.

HTTP Method

GET

Resource URI

/api/presence/v1/insights

Requires OAuth

N

Parameters

Table 207: Parameter Details

| Name | Required | Default | Type | Location | Description |
|-----------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |
| date | N | — | String | query | Date |
| startDate | Y | — | String | query | Start Date |
| endDate | Y | — | String | query | End Date |

Content Type

application/json

Usage Guidelines

<https://<tenant-id>.cmxcisco.com/api/presence/v1/insights/?siteId=<Site ID>&startDate=<date in yyyy-mm-dd>&endDate=<date in yyyy-mm-dd>>

Sample Output

```
{
  "weekStatus":null,
  "monthStatus":null,
  "yesterdayStatus":null,
  "weekStats":{
    "peakDay":"2017-02-28",
    "busiestHour":0,
    "peakCount":112,
    "busiestDay":0,
    "hourlyAverage":25.0138888888889,
    "peakHour":15,
    "peakHourCount":49,
    "peakHourDay":"2017-02-27",
    "busiestWeekDate":"2017-03-01",
    "busiestMonthDate":null
  },
  "monthStats":{
    "peakDay":"2017-03-01",
    "busiestHour":16,
    "peakCount":100,
    "busiestDay":3,
    "hourlyAverage":25.5,
    "peakHour":16,
    "peakHourCount":45,
    "peakHourDay":"2017-03-01",
    "busiestWeekDate":null,
    "busiestMonthDate":"2017-03-01"
  },
  "weekRepeatVisitorStats":{
    "DAILY":{
      "peakDay":"2017-03-01",
      "busiestHour":0,
      "peakCount":60,
      "busiestDay":-1,
      "hourlyAverage":14.6111111111111,
      "peakHour":18,
      "peakHourCount":34,
    }
  }
}
```

```

        "peakHourDay":null,
        "busiestWeekDate":null,
        "busiestMonthDate":null
    },
    "WEEKLY":{
        "peakDay":"2017-02-27",
        "busiestHour":16,
        "peakCount":27,
        "busiestDay":-1,
        "hourlyAverage":5.375,
        "peakHour":16,
        "peakHourCount":19,
        "peakHourDay":null,
        "busiestWeekDate":null,
        "busiestMonthDate":null
    },
    "OCCASIONAL":{
        "peakDay":"2017-02-28",
        "busiestHour":0,
        "peakCount":20,
        "busiestDay":-1,
        "hourlyAverage":2.444444444444444,
        "peakHour":19,
        "peakHourCount":6,
        "peakHourDay":null,
        "busiestWeekDate":null,
        "busiestMonthDate":null
    },
    "FIRST_TIME":{
        "peakDay":"2017-02-27",
        "busiestHour":0,
        "peakCount":24,
        "busiestDay":-1,
        "hourlyAverage":1.888888888888889,
        "peakHour":15,
        "peakHourCount":6,
        "peakHourDay":null,
        "busiestWeekDate":null,
        "busiestMonthDate":null
    },
    "YESTERDAY":{
        "peakDay":null,
        "busiestHour":0,
        "peakCount":0,
        "busiestDay":0,
        "hourlyAverage":0.0,
        "peakHour":0,
        "peakHourCount":0,
        "peakHourDay":null,
        "busiestWeekDate":null,
        "busiestMonthDate":null
    }
},
"monthRepeatVisitorStats":{
    "DAILY":{
        "peakDay":"2017-03-01",
        "busiestHour":18,
        "peakCount":60,
        "busiestDay":-1,
        "hourlyAverage":18.41666666666667,
        "peakHour":18,
        "peakHourCount":34,
        "peakHourDay":null,
        "busiestWeekDate":null,
    }
}

```

```
    "busiestMonthDate":null
  },
  "WEEKLY":{
    "peakDay":"2017-03-01",
    "busiestHour":22,
    "peakCount":18,
    "busiestDay":-1,
    "hourlyAverage":3.75,
    "peakHour":22,
    "peakHourCount":6,
    "peakHourDay":null,
    "busiestWeekDate":null,
    "busiestMonthDate":null
  },
  "OCCASIONAL":{
    "peakDay":"2017-03-01",
    "busiestHour":7,
    "peakCount":8,
    "busiestDay":-1,
    "hourlyAverage":1.8333333333333333,
    "peakHour":7,
    "peakHourCount":4,
    "peakHourDay":null,
    "busiestWeekDate":null,
    "busiestMonthDate":null
  },
  "FIRST_TIME":{
    "peakDay":"2017-03-01",
    "busiestHour":16,
    "peakCount":14,
    "busiestDay":-1,
    "hourlyAverage":1.5,
    "peakHour":16,
    "peakHourCount":5,
    "peakHourDay":null,
    "busiestWeekDate":null,
    "busiestMonthDate":null
  },
  "YESTERDAY":{
    "peakDay":null,
    "busiestHour":0,
    "peakCount":0,
    "busiestDay":0,
    "hourlyAverage":0.0,
    "peakHour":0,
    "peakHourCount":0,
    "peakHourDay":null,
    "busiestWeekDate":null,
    "busiestMonthDate":null
  }
}
}
```

Clients API

GET: Excluded Client Counts

Description

This API returns the client counts excluded by filters.

HTTP Method

GET

Resource URI

/api/presence/v1/excluded

Requires OAuth

N

Parameters

Table 208: Parameter Details

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | N | — | Number | query | Site ID |

Content Type

application/json

Usage Guidelines

<https://<tenant-id>.cmxcisco.com/api/presence/v1/excluded?siteId=<Site ID>>

Sample Output

```
{
  "repeat":0,
  "dwell":0,
  "ssid":0
}
```

GET: Active Clients

Description

This API returns the active clients seen in the last 20 minutes.

HTTP Method

GET

Resource URI

/api/presence/v1/clients

Requires OAuth

N

Parameters

None.

Content Type

application/json

Usage Guidelines

https://<tenant-id>.cmxcisco.com/api/presence/v1/excluded?siteId=<Site ID>

Sample Output

```
[
  {
    "siteEntries":{
      "1487056035936":{
        "macAddress":"ac:c3:3a:87:5c:79",
        "status":"PASSERBY",
        "siteId":1487056035936,
        "siteName":"PSL NOC",
        "firstRssiTime":1488360873407,
        "lastRssiTime":1488360873407,
        "lastMarkedPasserBy":1488360873407,
        "firstMarkedVisitor":0,
        "lastMarkedVisitor":0,
        "firstMarkedAssociated":0,
        "lastMarkedAssociated":0,
        "lastInfoTime":0,
        "rssi":-83,
        "currentApMacAddress":"00:2a:10:f8:87:50",
        "currentApName":null,
        "lastApMacAddress":null,
        "lastApName":null,
        "controller":"10.222.175.13",
        "firstRssiTimeStamp":"2017-03-01 09:34:407",
        "lastRssiTimeStamp":"2017-03-01 09:34:407",
        "lastMarkedPasserByTimeStamp":"2017-03-01 09:34:407",
        "firstMarkedVisitorTimeStamp":"null",
        "lastMarkedVisitorTimeStamp":"null",
        "lastMarkedAssociatedTimeStamp":"null",
        "firstMarkedAssociatedTimeStamp":"null",
        "lastInfoTimeStamp":"null",
        "lastHeard":1488360873407
      }
    },
    "macAddress":"ac:c3:3a:87:5c:79",
    "changedOn":1488360873407,
    "status":"PASSERBY",
  }
]
```

```

    "ipv4Address":null,
    "ipv6Address":null,
    "ssid":null,
    "bytesReceived":0,
    "bytesSent":0,
    "lastSiteId":0,
    "currentSiteId":1487056035936,
    "rssi":-83,
    "currentSiteName":"PSL NOC",
    "changedOnTimeStamp":"2017-03-01 09:34:407",
    "lastApMacAddress":"","",
    "currentApMacAddress":"00:2a:10:f8:87:50",
    "currentApName":null,
    "lastApName":"","",
    "lastSiteName":""
  },
  {
    "siteEntries":{
      "1487056035936":{
        "macAddress":"cc:61:e5:88:f0:d8",
        "status":"PASSERBY",
        "siteId":1487056035936,
        "siteName":"PSL NOC",
        "firstRssiTime":1488360977448,
        "lastRssiTime":1488361771824,
        "lastMarkedPasserBy":1488361771824,
        "firstMarkedVisitor":0,
        "lastMarkedVisitor":0,
        "firstMarkedAssociated":0,
        "lastMarkedAssociated":0,
        "lastInfoTime":0,
        "rssi":-84,
        "currentApMacAddress":"84:3d:c6:14:73:50",
        "currentApName":null,
        "lastApMacAddress":"00:2a:10:f8:87:50",
        "lastApName":null,
        "controller":"10.222.175.13",
        "firstRssiTimeStamp":"2017-03-01 09:36:448",
        "lastRssiTimeStamp":"2017-03-01 09:49:824",
        "lastMarkedPasserByTimeStamp":"2017-03-01 09:49:824",
        "firstMarkedVisitorTimeStamp":"null",
        "lastMarkedVisitorTimeStamp":"null",
        "lastMarkedAssociatedTimeStamp":"null",
        "firstMarkedAssociatedTimeStamp":"null",
        "lastInfoTimeStamp":"null",
        "lastHeard":1488361771824
      },
      "1487260407843":{
        "macAddress":"cc:61:e5:88:f0:d8",
        "status":"PASSERBY",
        "siteId":1487260407843,
        "siteName":"NOC",
        "firstRssiTime":1488361225740,
        "lastRssiTime":1488361589829,
        "lastMarkedPasserBy":1488361589829,
        "firstMarkedVisitor":0,
        "lastMarkedVisitor":0,
        "firstMarkedAssociated":0,
        "lastMarkedAssociated":0,
        "lastInfoTime":0,
        "rssi":-82,
        "currentApMacAddress":"84:3d:c6:0a:bb:80",
        "currentApName":null,
        "lastApMacAddress":null,

```

```

        "lastApName":null,
        "controller":"10.222.175.13",
        "firstRssiTimeStamp":"2017-03-01 09:40:740",
        "lastRssiTimeStamp":"2017-03-01 09:46:829",
        "lastMarkedPasserByTimeStamp":"2017-03-01 09:46:829",
        "firstMarkedVisitorTimeStamp":"null",
        "lastMarkedVisitorTimeStamp":"null",
        "lastMarkedAssociatedTimeStamp":"null",
        "firstMarkedAssociatedTimeStamp":"null",
        "lastInfoTimeStamp":"null",
        "lastHeard":1488361589829
    }
},
"macAddress":"cc:61:e5:88:f0:d8",
"changedOn":1488361771824,
"status":"PASSERBY",
"ipv4Address":null,
"ipv6Address":null,
"ssid":null,
"bytesReceived":0,
"bytesSent":0,
"lastSiteId":1487056035936,
"currentSiteId":1487056035936,
"rssi":-84,
"currentSiteName":"PSL NOC",
"changedOnTimeStamp":"2017-03-01 09:49:824",
"lastApMacAddress":"84:3d:c6:14:73:50",
"currentApMacAddress":"84:3d:c6:14:73:50",
"currentApName":null,
"lastApName":null,
"lastSiteName":"PSL NOC"
},
{
"siteEntries":{
"1487056035936":{
"macAddress":"dc:1a:c5:4c:c7:d3",
"status":"PASSERBY",
"siteId":1487056035936,
"siteName":"PSL NOC",
"firstRssiTime":1488361425736,
"lastRssiTime":1488361425736,
"lastMarkedPasserBy":1488361425736,
"firstMarkedVisitor":0,
"lastMarkedVisitor":0,
"firstMarkedAssociated":0,
"lastMarkedAssociated":0,
"lastInfoTime":0,
"rssi":-87,
"currentApMacAddress":"00:2a:10:ee:40:40",
"currentApName":null,
"lastApMacAddress":null,
"lastApName":null,
"controller":"10.222.175.13",
"firstRssiTimeStamp":"2017-03-01 09:43:736",
"lastRssiTimeStamp":"2017-03-01 09:43:736",
"lastMarkedPasserByTimeStamp":"2017-03-01 09:43:736",
"firstMarkedVisitorTimeStamp":"null",
"lastMarkedVisitorTimeStamp":"null",
"lastMarkedAssociatedTimeStamp":"null",
"firstMarkedAssociatedTimeStamp":"null",
"lastInfoTimeStamp":"null",
"lastHeard":1488361425736
}
}
},

```

```

    "macAddress": "dc:1a:c5:4c:c7:d3",
    "changedOn": 1488361427739,
    "status": "PASSERBY",
    "ipv4Address": null,
    "ipv6Address": null,
    "ssid": null,
    "bytesReceived": 0,
    "bytesSent": 0,
    "lastSiteId": 1487056035936,
    "currentSiteId": 1487056035936,
    "rssi": -87,
    "currentSiteName": "PSL NOC",
    "changedOnTimeStamp": "2017-03-01 09:43:739",
    "lastApMacAddress": "00:2a:10:ee:40:40",
    "currentApMacAddress": "00:2a:10:ee:40:40",
    "currentApName": null,
    "lastApName": null,
    "lastSiteName": "PSL NOC"
  },
  {
    "siteEntries": {
      "1487056035936": {
        "macAddress": "00:08:22:be:76:bb",
        "status": "PASSERBY",
        "siteId": 1487056035936,
        "siteName": "PSL NOC",
        "firstRssiTime": 1488359961555,
        "lastRssiTime": 1488360953775,
        "lastMarkedPasserBy": 1488360953775,
        "firstMarkedVisitor": 0,
        "lastMarkedVisitor": 0,
        "firstMarkedAssociated": 0,
        "lastMarkedAssociated": 0,
        "lastInfoTime": 0,
        "rssi": -81,
        "currentApMacAddress": "00:2a:10:ee:40:40",
        "currentApName": null,
        "lastApMacAddress": "84:3d:c6:14:73:50",
        "lastApName": null,
        "controller": "10.222.175.13",
        "firstRssiTimeStamp": "2017-03-01 09:19:555",
        "lastRssiTimeStamp": "2017-03-01 09:35:775",
        "lastMarkedPasserByTimeStamp": "2017-03-01 09:35:775",
        "firstMarkedVisitorTimeStamp": "null",
        "lastMarkedVisitorTimeStamp": "null",
        "lastMarkedAssociatedTimeStamp": "null",
        "firstMarkedAssociatedTimeStamp": "null",
        "lastInfoTimeStamp": "null",
        "lastHeard": 1488360953775
      },
      "1487260407843":
    ...<etc>
  }
}

```

GET: Client Detail

Description

This API returns the client detail for the specified MAC address for a specified site.

HTTP Method

GET

Resource URI

/api/presence/v1/clients/macaddress

Requires OAuth

N

Parameters*Table 209: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|------------|----------|---------|--------|-------------|-------------|
| macaddress | Y | — | String | pathReplace | MAC address |
| site-id | Y | — | String | pathReplace | Site ID |

Content Type

application/json

Usage Guidelines

https://<tenant-id>.cmxcisco.com/api/presence/v1/clients?siteId=<Site ID>&macaddress=<MAC address>

Sample Output

```
[
  {
    "siteEntries":{
      "1487056035936":{
        "macAddress":"50:c8:e5:c5:ba:f0",
        "status":"PASSERBY",
        "siteId":1487056035936,
        "siteName":"PSL NOC",
        "firstRssiTime":1488362139553,
        "lastRssiTime":1488362515548,
        "lastMarkedPasserBy":1488362515548,
        "firstMarkedVisitor":0,
        "lastMarkedVisitor":0,
        "firstMarkedAssociated":0,
        "lastMarkedAssociated":0,
        "lastInfoTime":0,
        "rssi":-88,
        "currentApMacAddress":"00:2a:10:f8:87:50",
        "currentApName":null,
        "lastApMacAddress":null,
        "lastApName":null,
        "controller":"10.222.175.13",
        "firstRssiTimeStamp":"2017-03-01 09:55:553",
        "lastRssiTimeStamp":"2017-03-01 10:01:548",
        "lastMarkedPasserByTimeStamp":"2017-03-01 10:01:548",
        "firstMarkedVisitorTimeStamp":"null",
        "lastMarkedVisitorTimeStamp":"null",
        "lastMarkedAssociatedTimeStamp":"null",
        "firstMarkedAssociatedTimeStamp":"null",
      }
    }
  }
]
```

```

        "lastInfoTimeStamp":"null",
        "lastHeard":1488362515548
    },
    "1487260407843":{
        "macAddress":"50:c8:e5:c5:ba:f0",
        "status":"PASSERBY",
        "siteId":1487260407843,
        "siteName":"NOC",
        "firstRssiTime":1488362141536,
        "lastRssiTime":1488362513641,
        "lastMarkedPasserBy":1488362513641,
        "firstMarkedVisitor":0,
        "lastMarkedVisitor":0,
        "firstMarkedAssociated":0,
        "lastMarkedAssociated":0,
        "lastInfoTime":0,
        "rssi":-92,
        "currentApMacAddress":"84:3d:c6:0a:bb:80",
        "currentApName":null,
        "lastApMacAddress":null,
        "lastApName":null,
        "controller":"10.222.175.13",
        "firstRssiTimeStamp":"2017-03-01 09:55:536",
        "lastRssiTimeStamp":"2017-03-01 10:01:641",
        "lastMarkedPasserByTimeStamp":"2017-03-01 10:01:641",
        "firstMarkedVisitorTimeStamp":"null",
        "lastMarkedVisitorTimeStamp":"null",
        "lastMarkedAssociatedTimeStamp":"null",
        "firstMarkedAssociatedTimeStamp":"null",
        "lastInfoTimeStamp":"null",
        "lastHeard":1488362513641
    }
},
"macAddress":"50:c8:e5:c5:ba:f0",
"changedOn":1488362527563,
"status":"PASSERBY",
"ipv4Address":null,
"ipv6Address":null,
"ssid":null,
"bytesReceived":0,
"bytesSent":0,
"lastSiteId":1487056035936,
"currentSiteId":1487056035936,
"rssi":-92,
"currentSiteName":"PSL NOC",
"changedOnTimeStamp":"2017-03-01 10:02:563",
"lastApMacAddress":"00:2a:10:f8:87:50",
"currentApMacAddress":"00:2a:10:f8:87:50",
"currentApName":null,
"lastApName":null,
"lastSiteName":"PSL NOC"
},
{
    "siteEntries":{
        "1487056035936":{
            "macAddress":"cc:61:e5:88:f0:d8",
            "status":"PASSERBY",
            "siteId":1487056035936,
            "siteName":"PSL NOC",
            "firstRssiTime":1488360977448,
            "lastRssiTime":1488361771824,
            "lastMarkedPasserBy":1488361771824,
            "firstMarkedVisitor":0,
            "lastMarkedVisitor":0,

```

```

    "firstMarkedAssociated":0,
    "lastMarkedAssociated":0,
    "lastInfoTime":0,
    "rssi":-84,
    "currentApMacAddress":"84:3d:c6:14:73:50",
    "currentApName":null,
    "lastApMacAddress":"00:2a:10:f8:87:50",
    "lastApName":null,
    "controller":"10.222.175.13",
    "firstRssiTimeStamp":"2017-03-01 09:36:448",
    "lastRssiTimeStamp":"2017-03-01 09:49:824",
    "lastMarkedPasserByTimeStamp":"2017-03-01 09:49:824",
    "firstMarkedVisitorTimeStamp":"null",
    "lastMarkedVisitorTimeStamp":"null",
    "lastMarkedAssociatedTimeStamp":"null",
    "firstMarkedAssociatedTimeStamp":"null",
    "lastInfoTimeStamp":"null",
    "lastHeard":1488361771824
  },
  "1487260407843":{
    "macAddress":"cc:61:e5:88:f0:d8",
    "status":"PASSERBY",
    "siteId":1487260407843,
    "siteName":"NOC",
    "firstRssiTime":1488361225740,
    "lastRssiTime":1488361589829,
    "lastMarkedPasserBy":1488361589829,
    "firstMarkedVisitor":0,
    "lastMarkedVisitor":0,
    "firstMarkedAssociated":0,
    "lastMarkedAssociated":0,
    "lastInfoTime":0,
    "rssi":-82,
    "currentApMacAddress":"84:3d:c6:0a:bb:80",
    "currentApName":null,
    "lastApMacAddress":null,
    "lastApName":null,
    "controller":"10.222.175.13",
    "firstRssiTimeStamp":"2017-03-01 09:40:740",
    "lastRssiTimeStamp":"2017-03-01 09:46:829",
    "lastMarkedPasserByTimeStamp":"2017-03-01 09:46:829",
    "firstMarkedVisitorTimeStamp":"null",
    "lastMarkedVisitorTimeStamp":"null",
    "lastMarkedAssociatedTimeStamp":"null",
    "firstMarkedAssociatedTimeStamp":"null",
    "lastInfoTimeStamp":"null",
    "lastHeard":1488361589829
  }
},
"macAddress":"cc:61:e5:88:f0:d8",
"changedOn":1488361771824,
"status":"PASSERBY",
"ipv4Address":null,
"ipv6Address":null,
"ssid":null,
"bytesReceived":0,
"bytesSent":0,
"lastSiteId":1487056035936,
"currentSiteId":1487056035936,
"rssi":-84,
"currentSiteName":"PSL NOC",
"changedOnTimeStamp":"2017-03-01 09:49:824",
"lastApMacAddress":"84:3d:c6:14:73:50",
"currentApMacAddress":"84:3d:c6:14:73:50",

```

```

    "currentApName":null,
    "lastApName":null,
    "lastSiteName":"PSL NOC"
  },
  {
    "siteEntries":{
      "1487056035936":{
        "macAddress":"b4:ce:f6:6e:9d:ea",
        "status":"PASSERBY",
        "siteId":1487056035936,
        "siteName":"PSL NOC",
        "firstRssiTime":1488357877311,
        "lastRssiTime":1488362333581,
        "lastMarkedPasserBy":1488362333581,
        "firstMarkedVisitor":0,
        "lastMarkedVisitor":0,
        "firstMarkedAssociated":0,
        "lastMarkedAssociated":0,
        "lastInfoTime":0,
        "rssi":-90,
        "currentApMacAddress":"00:2a:10:f8:87:50",
        "currentApName":null,
        "lastApMacAddress":"84:3d:c6:14:73:50",
        "lastApName":null,
        "controller":"10.222.175.13",
        "firstRssiTimeStamp":"2017-03-01 08:44:311",
        "lastRssiTimeStamp":"2017-03-01 09:58:581",
        "lastMarkedPasserByTimeStamp":"2017-03-01 09:58:581",
        "firstMarkedVisitorTimeStamp":"null",
        "lastMarkedVisitorTimeStamp":"null",
        "lastMarkedAssociatedTimeStamp":"null",
        "firstMarkedAssociatedTimeStamp":"null",
        "lastInfoTimeStamp":"null",
        "lastHeard":1488362333581
      },
      "1487260407843":{
        "macAddress":"b4:ce:f6:6e:9d:ea",
        "status":"PASSERBY",
        "siteId":1487260407843,
        "siteName":"NOC",
        "firstRssiTime":1488357852934,
        "lastRssiTime":1488362696100,
        "lastMarkedPasserBy":1488362696100,
        "firstMarkedVisitor":0,
        "lastMarkedVisitor":0,
        "firstMarkedAssociated":0,
        "lastMarkedAssociated":0,
        "lastInfoTime":0,
        "rssi":-95,
        "currentApMacAddress":"84:3d:c6:0a:bb:80",
        "currentApName":null,
        "lastApMacAddress":null,
        "lastApName":null,
        "controller":"10.222.175.13",
        "firstRssiTimeStamp":"2017-03-01 08:44:934",
        "lastRssiTimeStamp":"2017-03-01 10:04:100",
        "lastMarkedPasserByTimeStamp":"2017-03-01 10:04:100",
        "firstMarkedVisitorTimeStamp":"null",
        "lastMarkedVisitorTimeStamp":"null",
        "lastMarkedAssociatedTimeStamp":"null",
        "firstMarkedAssociatedTimeStamp":"null",
        "lastInfoTimeStamp":"null",
        "lastHeard":1488362696100
      }
    }
  }
}

```



```
    },
    "macAddress": "b4:ce:f6:6e:9d:ea",
    "changedOn": 1488362696100,
    "status": "PASSERBY",
    "ipv4Address": null,
    "ipv6Address": null,
    "ssid": null,
    "bytesReceived": 0,
    "bytesSent": 0,
    "lastSiteId": 1487260407843,
    "currentSiteId": 1487260407843,
    "rssi": -95,
    "currentSiteName": "NOC",
    "changedOnTimeStamp": "2017-03-01 10:04:100",
    "lastApMacAddress": "84:3d:c6:0a:bb:80",
    "currentApMacAddress": "84:3d:c6:0a:bb:80",
    "currentApName": null,
    "lastApName": null,
    "lastSiteName": "NOC"
  },
  {
    "siteEntries": {
      "1487260407843":
```

GET: Active Client Counts

Description

This API returns the count of active clients that are currently being tracked.

HTTP Method

GET

Resource URI

/api/presence/v1/clients/count

Requires Basic Auth

N

Parameters

None.

Content Type

application/json

API History

Table 210: API History

| Release | Modification |
|------------------------|-------------------------|
| Cisco CMX Release 10.4 | This API is introduced. |

Passersby API

GET: Count of Passersby Today

Description

This API returns the count of passersby seen today until now.

HTTP Method

GET

Resource URI

/api/presence/v1/passersby/count/today

Requires OAuth

N

Parameters

Table 211: Parameter Details

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |

Content Type

application/json

Usage Guidelines

https://<tenant-id>.cmxcisco.com/api/presence/v1/passersby/count/today?siteId=<Site ID>

Sample Output

Number

GET: Count of Passersby Yesterday

Description

This API returns the count of passersby seen yesterday.

HTTP Method

GET

Resource URI

/api/presence/v1/passersby/count/yesterday

Requires OAuth

N

Parameters

Table 212: Parameter Details

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |

Content Type

application/json

Usage Guidelines

https://<tenant-id>.cmxcisco.com/api/presence/v1/passersby/count/yesterday?siteId=<Site ID>

Sample Output

Number

GET: Average Count of Passersby in Last 3 Days

Description

This API returns the average count of passersby seen in the last 3 days.

HTTP Method

GET

Resource URI

/api/presence/v1/passersby/count/3days

Parameters

Table 213: Parameter Details

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |

Content Type

application/json

Usage Guidelines <https://<tenant-id>.cmxcisco.com/api/presence/v1/passersby/count/3days?siteId=<Site ID>>

Sample Output

Number

GET: Average Count of Passersby in the Last 7 days

Description

This API returns the average count of passersby seen in the last 7 days.

HTTP Method

GET

Resource URI

/api/presence/v1/passersby/count/lastweek

Requires OAuth

N

Parameters

Table 214: Parameter Details

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |

Content Type

application/json

Usage Guidelines <https://<tenant-id>.cmxcisco.com/api/presence/v1/passersby/count/lastweek?siteId=<Site ID>>

Sample Output

Number

GET: Average Count of Passersby in the Last 30 Days

Description

This API returns the average count of passersby seen in the last 30 days.

HTTP Method

GET

Resource URI

/api/presence/v1/passerby/count/lastmonth

Parameters*Table 215: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |

Content Type

application/json

Usage Guidelines

https://<tenant-id>.cmxcisco.com/api/presence/v1/passerby/count/lastmonth?siteId=<Site ID>

Sample Output

Number

GET: Sum of Passerby Counts in the Specified Date Range

Description

This API returns the sum of passerby counts for each day in the specified date range.

HTTP Method

GET

Resource URI

/api/presence/v1/passerby/total

Parameters*Table 216: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|-----------|----------|---------|--------|----------|------------------------------------|
| siteId | Y | — | Number | query | Site ID |
| startDate | Y | — | String | query | Start Date in format of yyyy-mm-dd |
| endDate | Y | — | String | query | End Date in format of yyyy-mm-dd |

Content Type

application/json

Usage Guidelines

https://<tenant-id>.cmxcisco.com/api/presence/v1/passerby/total?siteId=<Site ID>&startDate=yyyy-mm-dd&endDate=yyyy-mm-dd

Sample Output

Number

GET: Sum of Passerby Counts in the Last 3 Days

Description

This API returns the sum of passerby counts for each day in the last 3 days.

HTTP Method

GET

Resource URI

/api/presence/v1/passerby/total/3days

Requires OAuth

N

Parameters*Table 217: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |

Content Type

application/json

Usage Guidelines

https://<tenant-id>.cmxcisco.com/api/presence/v1/passerby/total/3days?siteId=<Site ID>

Sample Output

Number

GET: Sum of Passerby Counts in the Last 7 Days

Description

This API returns the sum of passerby counts for each day in the last 7 days.

HTTP Method

GET

Resource URI

/api/presence/v1/passerby/total/lastweek

Requires OAuth

N

Parameters

Table 218: Parameter Details

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |

Content Type

application/json

Usage Guidelines

https://<tenant-id>.cmxcisco.com/api/presence/v1/passerby/total/lastweek?siteId=<Site ID>

Sample Output

Number

GET: Count of Passersby on a Given Date

Description

This API returns the count of passersby seen on a given day.

HTTP Method

GET

Resource URI

/api/presence/v1/passerby/count

Requires OAuth

N

Parameters*Table 219: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|------------------------------|
| siteId | Y | — | Number | query | Site ID |
| date | Y | — | String | query | Date in format of yyyy-mm-dd |

Content Type

application/json

Usage Guidelines

<https://<tenant-id>.cmxcisco.com/api/presence/v1/passerby/count?siteId=<Site ID>&date=<date in yyyy-mm-dd>>

Sample Output

Number

GET: Sum of Passerby Counts in the Last 30 days

Description

This API returns the sum of passerby counts for each day in the last 30 days.

HTTP Method

GET

Resource URI

/api/presence/v1/passerby/total/lastmonth

Requires OAuth

N

Parameters*Table 220: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |

Content Type

application/json

Usage Guidelines

https://<tenant-id>.cmxcisco.com/api/presence/v1/passersby/total/lastmonth?siteId=<Site ID>

Sample Output

Number

GET: Hourly Count of Passersby Today

Description

This API returns the hourly count of passersby today until now.

HTTP Method

GET

Resource URI

/api/presence/v1/passersby/hourly/today

Requires OAuth

N

Parameters*Table 221: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |

Content Type

application/json

Usage Guidelines

https://<tenant-id>.cmxcisco.com/api/presence/v1/passersby/hourly/today?siteId=<Site ID>

Sample Output

```
{
  "0": 85,
  "1": 45,
  "2": 42,
  "3": 45,
  "4": 46,
  "5": 48,
  "6": 89,
  "7": 180,
  "8": 316,
```

```

    "9":618,
    "10":886,
    "11":587,
    "12":263
  }

```

GET: Hourly Count of Passersby Yesterday

Description

This API returns the hourly count of passersby yesterday.

HTTP Method

GET

Resource URI

/api/presence/v1/passersby/hourly/yesterday

Requires OAuth

N

Parameters

Table 222: Parameter Details

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |

Content Type

application/json

Usage Guidelines

<https://<tenant-id>.cmxcisco.com/api/presence/v1/passersby/hourly/yesterday?siteId=<Site ID>>

Sample Output

```

{
  "0":85,
  "1":45,
  "2":42,
  "3":45,
  "4":46,
  "5":48,
  "6":89,
  "7":180,
  "8":316,
  "9":618,
  "10":886,
  "11":587,
  "12":263
}

```

GET: Hourly Count of Passersby for Last 3 days

Description

This API returns the hourly count of passersby for the last 3 days including today.

HTTP Method

GET

Resource URI

/api/presence/v1/passersby/hourly/3days

Requires OAuth

N

Parameters

Table 223: Parameter Details

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |

Content Type

application/json

Usage Guidelines

https://<tenant-id>.cmxcisco.com/api/presence/v1/passersby/hourly/3days?siteId=<Site ID>

Sample Output

```
{
  "2017-02-27": {
    "0": 0,
    "1": 61,
    "2": 71,
    "3": 71,
    "4": 19,
    "5": 43,
    "6": 119,
    "7": 182,
    "8": 352,
    "9": 732,
    "10": 887,
    "11": 681,
    "12": 643,
    "13": 834,
    "14": 690,
    "15": 605,
    "16": 701,
    "17": 916,
    "18": 990,
    "19": 1124,
  }
}
```

```
        "20":902,  
        "21":604,  
        "22":314,  
        "23":150  
    },  
    "2017-02-28":{  
        "0":143,  
        "1":47,  
        "2":34,  
        "3":39,  
        "4":62,  
        "5":35,  
        "6":71,  
        "7":159,  
        "8":298,  
        "9":739,  
        "10":820,  
        "11":648,  
        "12":577,  
        "13":664,  
        "14":702,  
        "15":542,  
        "16":604,  
        "17":725,  
        "18":1112,  
        "19":1097,  
        "20":919,  
        "21":706,  
        "22":477,  
        "23":188  
    },  
    "2017-03-01":{  
        "0":85,  
        "1":45,  
        "2":42,  
        "3":45,  
        "4":46,  
        "5":48,  
        "6":89,  
        "7":180,  
        "8":316,  
        "9":618,  
        "10":886,  
        "11":587,  
        "12":288  
    }  
}
```

GET: Hourly Count of Passersby for a Day

Description

This API returns the hourly count of passersby for the specified date.

HTTP Method

GET

Resource URI

/api/presence/v1/passersby/hourly

Requires OAuth

N

Parameters*Table 224: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|------------------------------|
| siteId | Y | — | Number | query | Site ID |
| date | Y | — | String | query | Date in format of yyyy-mm-dd |

Content Type

application/json

Usage Guidelines

https://<tenant-id>.cmxcisco.com/api/presence/v1/passersby/hourly?siteId=<Site ID>&date=<date in yyyy-mm-dd>

Sample Output

```
{
  "0": 85,
  "1": 45,
  "2": 42,
  "3": 45,
  "4": 46,
  "5": 48,
  "6": 89,
  "7": 180,
  "8": 316,
  "9": 618,
  "10": 886,
  "11": 586,
  "12": 321
}
```

GET: Daily Count of Passersby for a Specified Date Range

Description

This API returns the daily count of passersby for the specified date range.

HTTP Method

GET

Resource URI

/api/presence/v1/passersby/daily

Requires OAuth

N

Parameters*Table 225: Parameter Details*

| Name | Required | Default | Type | Location | Description |
|-----------|----------|---------|--------|----------|---------------------------------|
| siteId | Y | — | Number | query | Site ID |
| startDate | Y | — | String | query | Start Date in yyyy-mm-dd format |
| endDate | Y | — | String | query | End Date in yyyy-mm-dd format |

Content Type

application/json

Usage Guidelines

<https://<tenant-id>.cmxcisco.com/api/presence/v1/passersby/daily?siteId=<Site ID>&startDate=<date in yyyy-mm-dd>&endDate=<date in yyyy-mm-dd>>

Sample Output

```
{
  "2017-02-01":0,
  "2017-02-02":0,
  "2017-02-03":0,
  "2017-02-04":0,
  "2017-02-05":0,
  "2017-02-06":0,
  "2017-02-07":0,
  "2017-02-08":0,
  "2017-02-09":0,
  "2017-02-10":0,
  "2017-02-11":0,
  "2017-02-12":0,
  "2017-02-13":0,
  "2017-02-14":7221,
  "2017-02-15":8461,
  "2017-02-16":12151,
  "2017-02-17":11309,
  "2017-02-18":11968,
  "2017-02-19":8076,
  "2017-02-20":11406,
  "2017-02-21":8776,
  "2017-02-22":10403,
  "2017-02-23":10149,
  "2017-02-24":9566,
```

```

    "2017-02-25": 9215,
    "2017-02-26": 7042,
    "2017-02-27": 10073,
    "2017-02-28": 9599,
    "2017-03-01": 4438
  }

```

GET: Daily Count of Passersby for the Last 7 days

Description

This API returns the daily count of passersby for the last 7 days.

HTTP Method

GET

Resource URI

/api/presence/v1/passersby/daily/lastweek

Requires OAuth

N

Parameters

Table 226: Parameter Details

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |

Content Type

application/json

Usage Guidelines

<https://<tenant-id>.cmxcisco.com/api/presence/v1/passersby/daily/lastweek?siteId=<Site ID>>

Sample Output

```

{
  "2017-02-01": 0,
  "2017-02-02": 0,
  "2017-02-03": 0,
  "2017-02-04": 0,
  "2017-02-05": 0,
  "2017-02-06": 0,
  "2017-02-07": 0,
  "2017-02-08": 0,
  "2017-02-09": 0,
  "2017-02-10": 0,
  "2017-02-11": 0,
  "2017-02-12": 0,
  "2017-02-13": 0,
  "2017-02-14": 7221,
}

```



```

    "2017-02-15":8461,
    "2017-02-16":12151,
    "2017-02-17":11309,
    "2017-02-18":11968,
    "2017-02-19":8076,
    "2017-02-20":11406,
    "2017-02-21":8776,
    "2017-02-22":10403,
    "2017-02-23":10149,
    "2017-02-24":9566,
    "2017-02-25":9215,
    "2017-02-26":7042,
    "2017-02-27":10073,
    "2017-02-28":9599,
    "2017-03-01":4438
  }

```

GET: Daily count of passersby for the last 30 days

Description

This API returns the daily count of passersby for the last 30 days.

HTTP Method

GET

Resource URI

/api/presence/v1/passersby/daily/lastmonth

Requires OAuth

N

Parameters

Table 227: Parameter Details

| Name | Required | Default | Type | Location | Description |
|--------|----------|---------|--------|----------|-------------|
| siteId | Y | — | Number | query | Site ID |

Content Type

application/json

Usage Guidelines

https://<tenant-id>.cmxcisco.com/api/presence/v1/passersby/daily/lastmonth?siteId=<Site ID>

Sample Output

```

{
  "2017-01-31":0,
  "2017-02-01":0,
  "2017-02-02":0,
  "2017-02-03":0,

```

```

"2017-02-04":0,
"2017-02-05":0,
"2017-02-06":0,
"2017-02-07":0,
"2017-02-08":0,
"2017-02-09":0,
"2017-02-10":0,
"2017-02-11":0,
"2017-02-12":0,
"2017-02-13":0,
"2017-02-14":7221,
"2017-02-15":8461,
"2017-02-16":12151,
"2017-02-17":11309,
"2017-02-18":11968,
"2017-02-19":8076,
"2017-02-20":11406,
"2017-02-21":8776,
"2017-02-22":10403,
"2017-02-23":10149,
"2017-02-24":9566,
"2017-02-25":9215,
"2017-02-26":7042,
"2017-02-27":10073,
"2017-02-28":9599,
"2017-03-01":4483
}

```

GET: Daily Count of Passersby by hour for the Specified Date Range

Description

This API returns the daily count of passersby by hour category for the specified date range

HTTP Method

GET

Resource URI

/api/presence/v1/passersby/daily/hourcategory

Requires OAuth

N

Parameters

Table 228: Parameter Details

| Name | Required | Default | Type | Location | Description |
|-----------|----------|---------|--------|----------|---------------------------------|
| siteId | Y | — | Number | query | Site ID |
| startDate | Y | — | String | query | Start Date in yyyy-mm-dd format |

| Name | Required | Default | Type | Location | Description |
|---------|----------|---------|--------|----------|-------------------------------|
| endDate | Y | — | String | query | End Date in yyyy-mm-dd format |

Content Type

application/json

Usage Guidelines

<https://<tenant-id>.cmxcisco.com/api/presence/v1/passersby/daily/hourcategory?siteId=<Site ID>&startDate=<date in yyyy-mm-dd>&endDate=<date in yyyy-mm-dd>>

Sample Output

```
{
  "2017-02-01":{
    "business_hours":null,
    "evening_hours":null,
    "morning_hours":null
  },
  "2017-02-02":{
    "business_hours":null,
    "evening_hours":null,
    "morning_hours":null
  },
  "2017-02-03":{
    "business_hours":null,
    "evening_hours":null,
    "morning_hours":null
  },
  "2017-02-04":{
    "business_hours":null,
    "evening_hours":null,
    "morning_hours":null
  },
  "2017-02-05":{
    "business_hours":null,
    "evening_hours":null,
    "morning_hours":null
  },
  "2017-02-06":{
    "business_hours":null,
    "evening_hours":null,
    "morning_hours":null
  },
  "2017-02-07":{
    "business_hours":null,
    "evening_hours":null,
    "morning_hours":null
  },
  "2017-02-08":{
    "business_hours":null,
    "evening_hours":null,
    "morning_hours":null
  },
  "2017-02-09":{
    "business_hours":null,
    "evening_hours":null,
    "morning_hours":null
  }
}
```

```
},
"2017-02-10":{
  "business_hours":null,
  "evening_hours":null,
  "morning_hours":null
},
"2017-02-11":{
  "business_hours":null,
  "evening_hours":null,
  "morning_hours":null
},
"2017-02-12":{
  "business_hours":null,
  "evening_hours":null,
  "morning_hours":null
},
"2017-02-13":{
  "business_hours":null,
  "evening_hours":null,
  "morning_hours":null
},
"2017-02-14":{
  "business_hours":0,
  "evening_hours":0,
  "morning_hours":0
},
"2017-02-15":{
  "business_hours":0,
  "evening_hours":0,
  "morning_hours":0
},
"2017-02-16":{
  "business_hours":0,
  "evening_hours":0,
  "morning_hours":0
},
"2017-02-17":{
  "business_hours":0,
  "evening_hours":0,
  "morning_hours":0
},
"2017-02-18":{
  "business_hours":0,
  "evening_hours":0,
  "morning_hours":0
},
"2017-02-19":{
  "business_hours":0,
  "evening_hours":0,
  "morning_hours":0
},
"2017-02-20":{
  "business_hours":0,
  "evening_hours":0,
  "morning_hours":0
},
"2017-02-21":{
  "business_hours":0,
  "evening_hours":0,
  "morning_hours":0
},
"2017-02-22":{
  "business_hours":0,
  "evening_hours":0,
```

```
    "morning_hours":0
  },
  "2017-02-23":{
    "business_hours":0,
    "evening_hours":0,
    "morning_hours":0
  },
  "2017-02-24":{
    "business_hours":0,
    "evening_hours":0,
    "morning_hours":0
  },
  "2017-02-25":{
    "business_hours":0,
    "evening_hours":0,
    "morning_hours":0
  },
  "2017-02-26":{
    "business_hours":0,
    "evening_hours":0,
    "morning_hours":0
  },
  "2017-02-27":{
    "business_hours":0,
    "evening_hours":0,
    "morning_hours":0
  },
  "2017-02-28":{
    "business_hours":0,
    "evening_hours":0,
    "morning_hours":0
  },
  "2017-03-01":{
    "business_hours":null,
    "evening_hours":null,
    "morning_hours":null
  }
}
```

