



## **Cisco Connected Mobile Experiences REST API Guide, Release 10.6.0 and Later**

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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.

Cisco CMX is the on-premise location service that is provided as part of the Cisco DNA Spaces overall location as a platform service.

# Conventions

This document uses the following conventions:

**Table 1: Conventions**

Convention	Indication
<b>bold font</b>	Commands and keywords and user-entered text appear in <b>bold font</b> .
<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>

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# 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"> <li>• deviceCount</li> <li>• deviceDwell</li> <li>• grossShopping</li> <li>• deviceCrossover</li> <li>• connectedDetected</li> <li>• dwellBreakdown</li> </ul>
period	The period of interest, either specified as a date range, or one of the predefined names	<ul style="list-style-type: none"> <li>• yyyy-mm-dd</li> <li>• yyyy-mm-dd;yyyy-mm-dd</li> <li>• today</li> <li>• yesterday</li> <li>• this week</li> <li>• last week</li> <li>• last 2 weeks</li> <li>• this month</li> <li>• last month</li> <li>• last 3 months</li> <li>• this year</li> <li>• last year</li> <li>• forever</li> </ul>
timeRange	The time window of interest on each day	<ul style="list-style-type: none"> <li>• HH:mm-HH:mm</li> </ul>
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"> <li>• 0-240</li> <li>• 0-480</li> <li>• 0-1440</li> <li>• 5-240</li> <li>• 5-480</li> <li>• 5-1440</li> <li>• 10-240</li> <li>• 10-480</li> <li>• 10-1440</li> <li>• 15-240</li> <li>• 15-480</li> <li>• 15-1440</li> <li>• 30-240</li> <li>• 30-480</li> <li>• 30-1440</li> <li>• 45-240</li> <li>• 45-480</li> <li>• 45-1440</li> <li>• 60-240</li> <li>• 60-480</li> <li>• 60-1440</li> </ul>
includeStationary	Whether to include stationary devices (default=false)	<ul style="list-style-type: none"> <li>• true</li> <li>• false</li> </ul>

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"> <li>• true</li> <li>• false</li> </ul>
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"> <li>• connected</li> <li>• detected</li> <li>• all</li> </ul>
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"> <li>• default</li> <li>• minute</li> <li>• Light:&lt;limit&gt;,Medium:&lt;limit&gt;,Heavy:&lt;limit&gt;</li> <li>• comma separated limit label:limit value</li> </ul>

**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"> <li>• yyyy-mm-dd</li> <li>• yyyy-mm-dd;yyyy-mm-dd</li> <li>• today</li> <li>• yesterday</li> <li>• this week</li> <li>• last week</li> <li>• last 2 weeks</li> <li>• this month</li> <li>• last month</li> <li>• last 3 months</li> <li>• this year</li> <li>• last year</li> <li>• forever</li> </ul>
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.	<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"> <li>• 0-240</li> <li>• 0-480</li> <li>• 0-1440</li> <li>• 5-240</li> <li>• 5-480</li> <li>• 5-1440</li> <li>• 10-240</li> <li>• 10-480</li> <li>• 10-1440</li> <li>• 15-240</li> <li>• 15-480</li> <li>• 15-1440</li> <li>• 30-240</li> <li>• 30-480</li> <li>• 30-1440</li> <li>• 45-240</li> <li>• 45-480</li> <li>• 45-1440</li> <li>• 60-240</li> <li>• 60-480</li> <li>• 60-1440</li> </ul>

**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"> <li>• hourly</li> <li>• daily</li> <li>• weekly</li> <li>• monthly</li> <li>• yearly</li> <li>• tag</li> <li>• tag-name</li> <li>• heterarchy level</li> <li>• null</li> </ul>
period	The period of interest, either specified as a date range, or one of the predefined names	<ul style="list-style-type: none"> <li>• yyyy-mm-dd</li> <li>• yyyy-mm-dd;yyyy-mm-dd</li> <li>• today</li> <li>• yesterday</li> <li>• this week</li> <li>• last week</li> <li>• last 2 weeks</li> <li>• this month</li> <li>• last month</li> <li>• last 3 months</li> <li>• this year</li> <li>• last year</li> <li>• forever</li> </ul>
timeRange	The time window of interest on each day.	<ul style="list-style-type: none"> <li>• HH:mm-HH:mm</li> </ul>

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"> <li>• none</li> <li>• sum</li> <li>• avg</li> </ul>
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"> <li>• 0-240</li> <li>• 0-480</li> <li>• 0-1440</li> <li>• 5-240</li> <li>• 5-480</li> <li>• 5-1440</li> <li>• 10-240</li> <li>• 10-480</li> <li>• 10-1440</li> <li>• 15-240</li> <li>• 15-480</li> <li>• 15-1440</li> <li>• 30-240</li> <li>• 30-480</li> <li>• 30-1440</li> <li>• 45-240</li> <li>• 45-480</li> <li>• 45-1440</li> <li>• 60-240</li> <li>• 60-480</li> <li>• 60-1440</li> </ul>

JSON array parameter	Description	Allowable values/formats
includeStationary	Whether to include stationary devices (default=false)	<ul style="list-style-type: none"> <li>• true</li> <li>• false</li> </ul>
connectionState	Whether to restrict to either connected or detected devices (default=all)	<ul style="list-style-type: none"> <li>• connected</li> <li>• detected</li> <li>• all</li> </ul>
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"> <li>• descendantOf</li> <li>• subsetOf:comma separated ids</li> </ul>
expandAll	Include all of the elements descendants in the result	<ul style="list-style-type: none"> <li>• true</li> <li>• false</li> </ul>

**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"> <li>• hourly</li> <li>• daily</li> <li>• weekly</li> <li>• monthly</li> <li>• yearly</li> <li>• tag</li> <li>• tag-name</li> <li>• heterarchy level</li> <li>• null</li> </ul>
period	The period of interest, either specified as a date range, or one of the predefined names	<ul style="list-style-type: none"> <li>• yyyy-mm-dd</li> <li>• yyyy-mm-dd;yyyy-mm-dd</li> <li>• today</li> <li>• yesterday</li> <li>• this week</li> <li>• last week</li> <li>• last 2 weeks</li> <li>• this month</li> <li>• last month</li> <li>• last 3 months</li> <li>• this year</li> <li>• last year</li> <li>• forever</li> </ul>
timeRange	The time window of interest on each day.	<ul style="list-style-type: none"> <li>• HH:mm-HH:mm</li> </ul>
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"> <li>• none</li> <li>• sum</li> <li>• avg</li> </ul>

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"> <li>• 0-240</li> <li>• 0-480</li> <li>• 0-1440</li> <li>• 5-240</li> <li>• 5-480</li> <li>• 5-1440</li> <li>• 10-240</li> <li>• 10-480</li> <li>• 10-1440</li> <li>• 15-240</li> <li>• 15-480</li> <li>• 15-1440</li> <li>• 30-240</li> <li>• 30-480</li> <li>• 30-1440</li> <li>• 45-240</li> <li>• 45-480</li> <li>• 45-1440</li> <li>• 60-240</li> <li>• 60-480</li> <li>• 60-1440</li> </ul>
includeStationary	Whether to include stationary devices (default=false)	<ul style="list-style-type: none"> <li>• true</li> <li>• false</li> </ul>

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"> <li>• descendantOf</li> <li>• subsetOf:comma separated ids</li> </ul>
expandAll	Include all of the elements descendants in the result	<ul style="list-style-type: none"> <li>• true</li> <li>• false</li> </ul>

**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"> <li>• connected</li> <li>• detected</li> <li>• all</li> </ul>

**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*

<b>Release</b>	<b>Modification</b>
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"> <li>• hourly</li> <li>• daily</li> <li>• weekly</li> <li>• monthly</li> <li>• yearly</li> <li>• tag</li> <li>• tag-name</li> <li>• 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]"</li> </ul>
period	The period of interest, specified as either a date range, or one of the predefined names.	<ul style="list-style-type: none"> <li>• yyyy-mm-dd</li> <li>• yyyy-mm-dd;yyyy-mm-dd</li> <li>• today</li> <li>• yesterday</li> <li>• this week</li> <li>• last week</li> <li>• last 2 weeks</li> <li>• this month</li> <li>• last month</li> <li>• last 3 months</li> <li>• this year</li> <li>• last year</li> <li>• forever</li> </ul>
timeRange	The time window of interest on each day.	<ul style="list-style-type: none"> <li>• HH:mm-HH:mm</li> </ul>

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"> <li>• none</li> <li>• sum</li> <li>• avg</li> </ul>
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"> <li>• 0-240</li> <li>• 0-480</li> <li>• 0-1440</li> <li>• 5-240</li> <li>• 5-480</li> <li>• 5-1440</li> <li>• 10-240</li> <li>• 10-480</li> <li>• 10-1440</li> <li>• 15-240</li> <li>• 15-480</li> <li>• 15-1440</li> <li>• 30-240</li> <li>• 30-480</li> <li>• 30-1440</li> <li>• 45-240</li> <li>• 45-480</li> <li>• 45-1440</li> <li>• 60-240</li> <li>• 60-480</li> <li>• 60-1440</li> </ul>

JSON Array Parameter	Description	Allowable Values/Formats
includeStationary	Whether to include stationary devices (default=false).	<ul style="list-style-type: none"> <li>• true</li> <li>• false</li> </ul>
connectionState	Whether to restrict connection to either connected or detected devices (default=all).	<ul style="list-style-type: none"> <li>• connected</li> <li>• detected</li> <li>• all</li> </ul>
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"> <li>• default</li> <li>• minute</li> <li>• comma separated limit label:limit value</li> </ul>
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"> <li>• descendantOf</li> <li>• subsetOf:comma separated ids</li> </ul>
expandAll	Include all the elements descendants in the result.	<ul style="list-style-type: none"> <li>• true</li> <li>• false</li> </ul>

**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"> <li>• hourly</li> <li>• daily</li> <li>• weekly</li> <li>• monthly</li> <li>• yearly</li> <li>• tag</li> <li>• tag-name</li> <li>• heterarchy level</li> <li>• null</li> </ul>
period	The period of interest, either specified as a date range, or one of the predefined names	<ul style="list-style-type: none"> <li>• yyyy-mm-dd</li> <li>• yyyy-mm-dd;yyyy-mm-dd</li> <li>• today</li> <li>• yesterday</li> <li>• this week</li> <li>• last week</li> <li>• last 2 weeks</li> <li>• this month</li> <li>• last month</li> <li>• last 3 months</li> <li>• this year</li> <li>• last year</li> <li>• forever</li> </ul>
timeRange	The time window of interest on each day	<ul style="list-style-type: none"> <li>• HH:mm-HH:mm</li> </ul>
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"> <li>• none</li> <li>• sum</li> <li>• avg</li> </ul>



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"> <li>• 0-240</li> <li>• 0-480</li> <li>• 0-1440</li> <li>• 5-240</li> <li>• 5-480</li> <li>• 5-1440</li> <li>• 10-240</li> <li>• 10-480</li> <li>• 10-1440</li> <li>• 15-240</li> <li>• 15-480</li> <li>• 15-1440</li> <li>• 30-240</li> <li>• 30-480</li> <li>• 30-1440</li> <li>• 45-240</li> <li>• 45-480</li> <li>• 45-1440</li> <li>• 60-240</li> <li>• 60-480</li> <li>• 60-1440</li> </ul>
includeStationary	Whether to include stationary devices	<ul style="list-style-type: none"> <li>• true</li> <li>• false</li> </ul>

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"> <li>connected</li> <li>detected</li> <li>all</li> </ul>
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"> <li>descendantOf</li> <li>subsetOf:comma separated ids</li> </ul>
expandAll	Include all of the elements descendants in the result	<ul style="list-style-type: none"> <li>true</li> <li>false</li> </ul>

**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  
}
```



## Configuration

---

- [Notification subscription API, on page 58](#)
- [Users API, on page 78](#)
- [Opt In Client API, on page 84](#)
- [Map resources API, on page 91](#)
- [Zone Count Register API, on page 104](#)
- [Sites API, on page 105](#)
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- [History alerts API, on page 110](#)
- [Northbound notification types and attributes API, on page 111](#)
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- [APIs for Exporting Large Dataset from CMX Cassandra Database, on page 119](#)
- [Device Count API, on page 125](#)

# 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"
            }
          }
        ],
        "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.execute-api.us-west-2.amazonaws.com/43/stage/listener/5f9678-a0f-4674-925-8610e72cc3?x-amzn-identity-id=a1991c30-86cf-11e7-51c0-b3388f84,
            "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/?token=05A01KQ1ChGCLTzTNI9eJ2W6BrZT6mD1z9.02vafTNDWq1U76GD909BAND,
            "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.cmxcis.co:43/api/ble/v1/notify?token=7jtderey0EACIKVQICthG-CILJLNi9_ez0WbRZC6mD1z9_0NvGEFNdLWz2126G12u09BmNJ",
            "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.eyJ0ZW5hbnRlc2I6ImUzInRlcmludEkiOiJ0eXN0.2S28kxWDSg-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-4674-92f5-8650e72cc3?notificationId=a191c30-8fd1-1e7451c4b23188834",
              "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-4674-92f5-8650e72cc3?notificationId=a191c30-8fd1-1e7451c4b23188834",
              "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 28: 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 29: 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 30: 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"> <li>• Any</li> <li>• Absence</li> <li>• AreaChange</li> <li>• Association</li> <li>• BatteryLife</li> <li>• Chokepoint</li> <li>• Containment</li> <li>• Emergency</li> <li>• Movement</li> <li>• Presence</li> <li>• LocationUpdate</li> <li>• Zone</li> <li>• Location</li> <li>• ServiceStatus</li> <li>• NetworkDesignChanged</li> <li>• CpuUsage</li> <li>• MemoryUsage</li> <li>• DiskUsage</li> <li>• BeaconMovement</li> <li>• BeaconAbsence</li> <li>• Update</li> <li>• InOut</li> <li>• PasserbyDetected</li> <li>• PasserbyBecameVisitor</li> <li>• VisitorWentAway</li> <li>• SiteEntryChanged</li> </ul>
enabled	N	—	enumerated	body	<p>enabled</p> <ul style="list-style-type: none"> <li>• true</li> <li>• false</li> </ul>



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

**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 31: 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 32: 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 33: 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"><li>• Critical</li><li>• Major</li><li>• Minor</li><li>• Warning</li><li>• Info</li><li>• Cleared</li></ul>
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"> <li>• Any</li> <li>• Absence</li> <li>• AreaChange</li> <li>• Association</li> <li>• BatteryLife</li> <li>• Chokepoint</li> <li>• Containment</li> <li>• Emergency</li> <li>• Movement</li> <li>• Presence</li> <li>• LocationUpdate</li> <li>• Zone</li> <li>• Location</li> <li>• ServiceStatus</li> <li>• NetworkDesignChanged</li> <li>• CpuUsage</li> <li>• MemoryUsage</li> <li>• DiskUsage</li> <li>• BeaconMovement</li> <li>• BeaconAbsence</li> <li>• Update</li> <li>• InOut</li> <li>• PasserbyDetected</li> <li>• PasserbyBecameVisitor</li> <li>• VisitorWentAway</li> <li>• SiteEntryChanged</li> </ul>
enabled	N	—	enumerated	body	<p>enabled</p> <ul style="list-style-type: none"> <li>• true</li> <li>• false</li> </ul>

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

**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 34: 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 35: 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 36: 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 37: Parameter Details*

<b>Name</b>	<b>Required</b>	<b>Default</b>	<b>Type</b>	<b>Location</b>	<b>Description</b>
name	Y	—	String	pathReplace	Notification Name.
action	Y	—	String	pathReplace	Enable/Disable

**Content Type**

application/json

# Users API

## 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
  }
]
```

## 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 38: 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: 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: 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 39: API History*

Release	Modification
Cisco CMX Release 10.5	This API is introduced.

## GET: Get User Information

**Description**

This API enables you to retrieve user information from the CMX system.

**HTTP Method**

GET

**Resource URI**

/api/config/v1/aaa/getuser/:username

**Requires OAuth**

N

## Parameters

*Table 40: Parameter Details*

Name	Required	Default	Type	Location	Description
username	Y		String	pathReplace	Username of user

## Content Type

application/json

## API History

*Table 41: API History*

Release	Modification
Cisco CMX Release 10.6	This API is introduced.

# Opt In Client API

## GET: List of Opt-In devices

### Description

### HTTP Method

GET

### Resource URI

/api/config/v1/optInClientParams/:clusterId

### Requires Basic Auth

N

### Parameters

*Table 42: Parameter Details*

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

### Content Type

application/json

### API History

*Table 43: API History*

Release	Modification
Cisco CMX Release 10.5	This API is introduced.

## 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 44: 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 45: API History*

Release	Modification
Cisco CMX Release 10.5	This API is introduced.

## POST: Update AnalyticsOptIn for Client Device(s) in the Opt-In list.

**Description**

This API would update the AnalyticsOptIn for client device(s) in the Opt-In list.

**HTTP Method**

POST

**Resource URI**

/api/config/v1/optInClientParams/:clusterId/update

**Requires OAuth**

N

## Parameters

Table 46: 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
OptInClient	N		array	body	List of OptInClient. When macaddresses are specified, OptInClient list is optional  Ensure OptInClient are nested within the square brackets [ ] to be considered as list, otherwise this operation would fail  for e.g. [{"macaddress": "aa:bb:cc:dd:ee:ff", "analyticsOptIn": true}, {"macaddress": "aa:bb:cc:dd:ee:ff", "analyticsOptIn": true}]

**Content Type**

application/json

**API History**

*Table 47: API History*

Release	Modification
Cisco CMX Release 10.6	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 48: Parameter Details*

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

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

**Content Type**

application/json

**API History***Table 49: API History*

Release	Modification
Cisco CMX Release 10.5	This API is introduced.

**DELETE: Delete Client Devices from Opt-In List****Description**

This API enables you to delete the client device(s) from the Opt-In list.

**HTTP Method**

DELETE

**Resource URI**

/api/config/v1/optInClientParams/:clusterId/delete

**Requires OAuth**

N

**Parameters***Table 50: Parameter Details*

Name	Required	Default	Type	Location	Description
clusterId	Y	1	String	pathReplace	clusterId (default 1)
devices	Y		String	query	Single or Comma Separated list of real mac addresses

**Content Type**

application/json

**API History***Table 51: API History*

Release	Modification
Cisco CMX Release 10.6	This API is introduced.

**DELETE: Remove all Opt-In Devices****Description**

This API removes all Opt-In devices.

**HTTP Method**

DELETE

**Resource URI**

/api/config/v1/optInClientParams/:clusterId/deleteAll

**Requires OAuth**

N

**Parameters***Table 52: Parameter Details*

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

**Content Type**

application/json

**API History***Table 53: API History*

Release	Modification
Cisco CMX Release 10.6	This API is introduced.

# 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": "Nortech Campus",
      "totalBuildings": 1,
      "buildingCounts": [
        {
          "buildingName": "Nortech-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 54: Parameter Details*

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

**Content Type**

application/json

**API History***Table 55: 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 56: 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 57: Parameter Details*

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

**Content Type**

application/json

## API History

Table 58: 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 59: 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 60: 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 61: 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 62: 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 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: 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 64: Parameter Details*

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

## Content Type

application/json

# Zone Count Register API

# 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,"aesUIId":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

# 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": "NMSPLB_CONNECTION_STATUS",
    "alertStatus": "Unhandled",
    "severity": "Critical",
    "origin": "cmx-vmdev83 WLC: 10.32.168.50",
    "source": "NMSPLB",
    "alarmDescription": "NMSPLB connection status is inactive for WLC 10.32.168.50",
    "lastEmail": 0,
    "refId": "NMSPLB"
  }
]
```



# 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"
  ]
}
```

# 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 65: 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 66: API History*

Release	Modification
Cisco CMX Release 10.4	This command is deprecated.

# 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"
    }
}
}
```

# 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 67: 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 68: 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 hierarchy 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/hierarchy/:pathSegments/childrencounts

**Requires Basic Auth**

N

## Parameters

**Table 69: 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 70: API History**

Release	Modification
Cisco CMX Release 10.4	This API is introduced.

# 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 71: 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 72: 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 73: 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"
}
```

# 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 74: 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 75: 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 76: 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."
```



# Device Count API

## GET: Device Count

### Description

This API returns the device count for different types of device and also the number of unique devices seen in that day.

### HTTP Method

GET

### Resource URI

/api/config/v1/location/count/

### Requires OAuth

N

### Parameters

None.

### Content Type

The response is a JSON and contains the count of devices seen for different type of devices.

### Sample Output

application/json. The response contains the following:

- Active Count for different device types at that instant.
- Untracked Device Counts for different device types at that instant.
- Total number of Unique Device (Mac address) seen in that day, this count resets to zero at Midnight.

```
{ "untrackedCounts": { "INTERFERER": 0, "ROGUE": 0, "BLE_TAG": 0, "ATTACKER": 0, "ROGUE_AP": 0, "ROGUE_CLIENT": 0, "TAG": 0, "CLIENT": 3, "WIRED_CLIENT": 0 }, "trackedElementsLimit": 300000, "untrackedDueToFilterCounts": {}, "activeElementCount": 292, "locallyAdministeredClientCount": 0, "activeCounts": { "INTERFERER": 0, "ROGUE": 0, "BLE_TAG": 0, "ATTACKER": 0, "ROGUE_AP": 232, "ROGUE_CLIENT": 0, "TAG": 5, "CLIENT": { "All": 55, "Associated": 0, "Probing": 55 }, "WIRED_CLIENT": 0 }, "uniqueDeviceCount": 375 }
```

## API History

*Table 77: API History*

Release	Modification
Cisco CMX Release 10.6.2	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 78: 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. <a href="https://www.epochconverter.com/">https://www.epochconverter.com/</a>
end	N	—	String	query	Session end time based on last login time in UTC epoch format. Use the Epoch Converter. <a href="https://www.epochconverter.com/">https://www.epochconverter.com/</a>
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

---

- [Zone Count Poll API](#), on page 132
- [Active Clients V3 API](#), on page 134
- [Northbound notification types and attributes API](#), on page 140
- [Clients History API](#), on page 143
- [Active Rogue Clients V3 API](#), on page 155
- [Active Interferers V3 API](#), on page 180
- [Active Rogue APs V3 API](#), on page 184
- [Active Tags V3 API](#), on page 215
- [BLE-Tags Location and Information API](#), on page 221

# Zone Count Poll API

## 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 79: API History*

Release	Modification
Cisco CMX Release 10.4	This API is introduced.

## 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 80: Parameter Details*

Name	Required	Default	Type	Location	Description
zoneId	Y		String	query	zoneId

**Content Type**

application/json

**API History**

*Table 81: 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 82: 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)

http://<cmx-ip-address>/api/location/v3/clients/count

```
{
  "totalCount": 29,
  "associatedCount": 0,
  "probingCount": 29
}
```

### API History

*Table 83: 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 84: 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
floorId	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)

http://<cmx-ip-address>/api/location/v3/clients

```
{
  "notificationType": "locationupdate",
  "subscriptionName": "CMX_Api_Server_Notification_1",
  "eventId": 7746773,
  "locationMapHierarchy": "System Campus>WLC-244-43>WLC-244-43-F1",
  "locationCoordinate": {
    "x": 53.100426,
    "y": 81.25328,
    "z": 0,
    "unit": "FEET"
  },
  "geoCoordinate": {
    "latitude": -999,
    "longitude": -999,
    "unit": "DEGREES"
  },
  "confidenceFactor": 32,
  "apMacAddress": "NOT APPLICABLE",
  "associated": false,
  "username": "NOT APPLICABLE",
  "ipAddress": [
    "NOT APPLICABLE"
  ]
}
```

```

    ],
    "ssid":"NOT APPLICABLE",
    "band":"NOT APPLICABLE",
    "floorId":"727001524986708012",
    "entity":"WIRELESS_CLIENTS",
    "deviceId":"e0:2a:82:e4:bb:ff",
    "lastSeen":"2021-05-19T02:21:17.164-0700",
    "rawLocation":{
      "rawX":-999,
      "rawY":-999,
      "unit":"FEET"
    },
    },
    "tagVendorData":null,
    "bleTagInfo":null,
    "locComputeType":"RSSI",
    "manufacturer":"Universal Global Scientific Industrial Co., Ltd.",
    "maxDetectedRssi":{
      "apMacAddress":"00:ee:ab:18:f0:40",
      "band":"IEEE_802_11_B",
      "slot":0,
      "rssi":-42,
      "antennaIndex":0,
      "lastHeardInSeconds":3
    },
    },
    "hierarchyDetails":{
      "campusParents":null,
      "campus":{
        "id":"1617954166291",
        "name":"System Campus"
      },
      },
      "building":{
        "id":"727001524986708011",
        "name":"WLC-244-43"
      },
      },
      "floor":{
        "id":"727001524986708012",
        "name":"WLC-244-43-F1"
      },
      },
      "zones":null
    },
    },
    "rssiEntries":[
      {
        "apMacAddress":"00:ee:ab:18:f0:40",
        "band":"IEEE_802_11_B",
        "slot":0,
        "antennaIndex":0,
        "rssi":-42,
        "lastHeardSecs":3
      },
      .....
    ],
    "timestamp":1621416077164,
    "sourceNotification":"127.0.0.1",
    "sourceNotificationKey":"127.0.0.1,1",
    "notificationTime":"1621416077201",
    "macAddress":"e0:2a:82:e4:bb:ff"
  }
}

```

## API History

*Table 85: API History*

<b>Release</b>	<b>Modification</b>
Cisco CMX Release 10.4	This API is introduced.

# 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 86: 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 87: API History

Release	Modification
Cisco CMX Release 10.3	Output field descriptor <b>Floor Ref Id</b> was introduced.

# Clients History API

## 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 88: 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
  }
]

```

## 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 89: 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.

Name	Required	Default	Type	Location	Description
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 90: 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 91: 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

Name	Required	Default	Type	Location	Description
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=2020/11/17`

```
{
  "Macaddress": "",
  "Username": "sharangp",
  "Data": [
  ],
  "Count": 0,
  "Date": "2020/11/17"
}
```

`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: 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  
  }  
]
```

# Active Rogue Clients V3 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 92: 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": {
    "floorId": "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 93: API History*

Release	Modification
Cisco CMX Release 10.4	This API is introduced.
Cisco CMX Release 10.6.2-89	This API was modified. The <code>floorRefId</code> component is replaced with <code>floorId</code> .

## GET: Active Rogue Clients Count

### Description

This API returns active rogue clients count.

### HTTP Method

GET

### Resource URI

/api/location/v3/rogueclients/count

### Requires Basic Auth

N

### Parameters

None.

### Content Type

application/json



**Sample Output**

```
{
  "totalCount": 9,
  "associatedCount": 0,
  "probingCount": 0
}
```

**API History***Table 94: API History*

Release	Modification
Cisco CMX Release 10.4	This API is introduced.
Cisco CMX Release 10.6.3	This API was modified to support V3.

## GET: All Rogue Clients

**Description**

This API returns all rogue clients

**HTTP Method**

GET

**Resource URI**

/api/location/v3/rogueclients

**Requires Basic Auth**

N

**Parameters**

None.

**Content Type**

application/json

**Sample Output (JSON)**

```
{
  "notificationType": "locationupdate",
  "subscriptionName": "CMX_Api_Server_Notification_1",
  "eventId": 7779817,
  "locationMapHierarchy": "System Campus>WLC-244-43>WLC-244-43-F1",
  "locationCoordinate": {
    "x": 49.0378,
    "y": 26.800388,
    "z": 0,
  }
}
```

```

    "unit":"FEET"
  },
  "geoCoordinate":{
    "latitude":-999,
    "longitude":-999,
    "unit":"DEGREES"
  },
  "confidenceFactor":48,
  "apMacAddress":"NOT APPLICABLE",
  "associated":false,
  "username":"NOT APPLICABLE",
  "ipAddress":[
    "NOT APPLICABLE"
  ],
  "ssid":"NOT APPLICABLE",
  "band":"NOT APPLICABLE",
  "floorId":"727001524986708012",
  "entity":"ROGUE_CLIENTS",
  "deviceId":"50:32:37:e9:23:84",
  "lastSeen":"2021-05-19T02:57:21.159-0700",
  "rawLocation":{
    "rawX":-999,
    "rawY":-999,
    "unit":"FEET"
  },
  "tagVendorData":null,
  "bleTagInfo":null,
  "locComputeType":"RSSI",
  "manufacturer":"Apple, Inc.",
  "maxDetectedRssi":{
    "apMacAddress":"b0:8b:cf:54:5c:80",
    "band":"IEEE_802_11_A",
    "slot":0,
    "rssi":-37,
    "antennaIndex":0,
    "lastHeardInSeconds":2
  },
  "hierarchyDetails":{
    "campusParents":null,
    "campus":{
      "id":"1617954166291",
      "name":"System Campus"
    },
    "building":{
      "id":"727001524986708011",
      "name":"WLC-244-43"
    },
    "floor":{
      "id":"727001524986708012",
      "name":"WLC-244-43-F1"
    },
    "zones":null
  },
  "rssiEntries":[
    {
      "apMacAddress":"b0:8b:cf:54:5c:80",
      "band":"IEEE_802_11_A",
      "slot":0,
      "antennaIndex":0,
      "rssi":-37,
      "lastHeardSecs":2
    }, .....
  ],
  "timestamp":1621418241159,

```

```

    "sourceNotification": "127.0.0.1",
    "sourceNotificationKey": "127.0.0.1,3",
    "notificationTime": "1621418241169",
    "macAddress": "50:32:37:e9:23:84"
  }

```

## API History

**Table 95: API History**

Release	Modification
Cisco CMX Release 10.4	This API is introduced.
Cisco CMX Release 10.6.3	This API was modified to support V3.

# 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 96: Parameter Details**

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

Name	Required	Default	Type	Location	Description
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"
    },
    "historyLogReason": "NETWORK_STATUS_CHANGE",
    "geoCoordinate": {
        "latitude": 37.42249498021849,
        "longitude": -121.95985730533519,
        "unit": "DEGREES"
    },
    "rawLocation": null,
    "networkStatus": "INACTIVE",
    "changedOn": 1512084951313,
    "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": "2017-11-30T23:15:11.673-0800",
  "firstLocatedTime": "2017-11-30T15:25:21.855-0800",
  "lastLocatedTime": "2017-11-30T15:25:21.855-0800"
},
"historyLogReason": "DISTANCE_CHANGE",
"geoCoordinate": {
  "latitude": 37.422446131682264,
  "longitude": -121.95979870153643,
  "unit": "DEGREES"
},
"rawLocation": null,
"networkStatus": "INACTIVE",
"changedOn": 1512084325828,
"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": 48.429688,
    "y": 23.829533,
    "z": 0,
    "unit": "FEET"
  },
  "currentlyTracked": false,
  "confidenceFactor": 120,
  "locComputeType": null,
  "statistics": {
    "currentServerTime": "2017-11-30T23:15:11.674-0800",
    "firstLocatedTime": "2017-11-30T15:12:20.971-0800",

```

```

        "lastLocatedTime": "2017-11-30T15:12:20.971-0800"
    },
    "historyLogReason": "NETWORK_STATUS_CHANGE",
    "geoCoordinate": {
        "latitude": 37.422446797858335,
        "longitude": -121.95979189823998,
        "unit": "DEGREES"
    },
    "rawLocation": null,
    "networkStatus": "INACTIVE",
    "changedOn": 1512083542971,
    "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": "2017-11-30T23:15:11.675-0800",
        "firstLocatedTime": "2017-11-30T13:39:50.341-0800",
        "lastLocatedTime": "2017-11-30T13:39:50.341-0800"
    },
    "historyLogReason": "NETWORK_STATUS_CHANGE",
    "geoCoordinate": {
        "latitude": 37.422446131682264,
        "longitude": -121.95979870153643,
        "unit": "DEGREES"
    },
    "rawLocation": null,
    "networkStatus": "INACTIVE",
    "changedOn": 1512077992418,
    "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": "2017-11-30T23:15:11.675-0800",
        "firstLocatedTime": "2017-11-30T13:27:31.114-0800",
        "lastLocatedTime": "2017-11-30T13:27:31.114-0800"
    },
    "historyLogReason": "NETWORK_STATUS_CHANGE",
    "geoCoordinate": {
        "latitude": 37.422446131682264,
        "longitude": -121.95979870153643,
        "unit": "DEGREES"
    },
    "rawLocation": null,
    "networkStatus": "INACTIVE",
    "changedOn": 1512077253127,
    "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": "2017-11-30T23:15:11.676-0800",
        "firstLocatedTime": "2017-11-30T13:02:59.838-0800",
        "lastLocatedTime": "2017-11-30T13:02:59.838-0800"
    },
},

```

```

    "historyLogReason": "NETWORK_STATUS_CHANGE",
    "geoCoordinate": {
      "latitude": 37.422446131682264,
      "longitude": -121.95979870153643,
      "unit": "DEGREES"
    },
    "rawLocation": null,
    "networkStatus": "INACTIVE",
    "changedOn": 1512075782216,
    "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": "2017-11-30T23:15:11.676-0800",
      "firstLocatedTime": "2017-11-30T12:18:00.944-0800",
      "lastLocatedTime": "2017-11-30T12:18:00.944-0800"
    },
    "historyLogReason": "NETWORK_STATUS_CHANGE",
    "geoCoordinate": {
      "latitude": 37.422446131682264,
      "longitude": -121.95979870153643,
      "unit": "DEGREES"
    },
    "rawLocation": null,
    "networkStatus": "INACTIVE",
    "changedOn": 1512073083025,
    "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": "2017-11-30T23:15:11.677-0800",
    "firstLocatedTime": "2017-11-30T11:20:12.326-0800",
    "lastLocatedTime": "2017-11-30T11:20:12.326-0800"
},
"historyLogReason": "NETWORK_STATUS_CHANGE",
"geoCoordinate": {
    "latitude": 37.42244462757822,
    "longitude": -121.95980593239442,
    "unit": "DEGREES"
},
"rawLocation": null,
"networkStatus": "INACTIVE",
"changedOn": 1512069614328,
"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,
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    "confidenceFactor": 120,
    "locComputeType": null,
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        "firstLocatedTime": "2017-11-30T11:18:30.307-0800",
        "lastLocatedTime": "2017-11-30T11:18:30.307-0800"
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    "numOfDetectingAPs": 0,
    "bssid": null,
    "containmentLevel": null,
    "state": null,
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    "manufacturer": "Cisco Systems, Inc"
},
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        "mapHierarchyString": "Nortech Campus>Nortech-1>1st Floor>CMX Bar",
        "mapHierarchyDetails": {
            "campus": "Nortech Campus",
            "building": "Nortech-1",
            "floor": "1st Floor",
            "floorAesUid": 727035700041482200,
            "zones": "CMX Bar"
        }
    },
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        "x": 52.333843,
        "y": 23.049349,
        "z": 0,
        "unit": "FEET"
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        "lastLocatedTime": "2017-11-30T09:02:29.324-0800"
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    "containmentLevel": null,
    "state": null,
    "gwMacAddr": null,
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},
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    "mapInfo": {
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        "mapHierarchyDetails": {
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            "building": "Nortech-1",
            "floor": "1st Floor",

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        "zones": "CMX Bar"
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        "y": 23.829533,
        "z": 0,
        "unit": "FEET"
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    "confidenceFactor": 120,
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        "unit": "DEGREES"
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    "state": null,
    "gwMacAddr": null,
    "manufacturer": "Cisco Systems, Inc"
},
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        "mapHierarchyDetails": {
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            "building": "Nortech-1",
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            "floorAesUid": 727035700041482200,
            "zones": "CMX Bar"
        }
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        "y": 23.049349,
        "z": 0,
        "unit": "FEET"
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    "containmentLevel": null,
    "state": null,
    "gwMacAddr": null,
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},
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        "mapHierarchyDetails": {
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            "building": "Nortech-1",
            "floor": "1st Floor",
            "floorAesUid": 727035700041482200,
            "zones": "Tm"
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    },
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        "y": 28.668585,
        "z": 0,
        "unit": "FEET"
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    "confidenceFactor": 80,
    "locComputeType": null,
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    "containmentLevel": null,
    "state": null,
    "gwMacAddr": null,
    "manufacturer": "Cisco Systems, Inc"
},
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    "mapInfo": {
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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,
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  "confidenceFactor": 120,
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    "mapHierarchyDetails": {
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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"
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  "confidenceFactor": 120,
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  },
},

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    "gwMacAddr": null,
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  },
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    "mapInfo": {
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      "mapHierarchyDetails": {
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        "building": "Nortech-1",
        "floor": "1st Floor",
        "floorAesUid": 727035700041482200,
        "zones": "CMX Bar"
      }
    },
    "mapCoordinate": {
      "x": 52.333843,
      "y": 23.049349,
      "z": 0,
      "unit": "FEET"
    },
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    "confidenceFactor": 120,
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    "gwMacAddr": null,
    "manufacturer": "Cisco Systems, Inc"
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    "mapInfo": {
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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": 23.049349,
      "z": 0,
      "unit": "FEET"
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    "confidenceFactor": 120,
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    "gwMacAddr": null,
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    "mapInfo": {
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        "building": "Nortech-1",
        "floor": "1st Floor",
        "floorAesUid": 727035700041482200,
        "zones": "CMX Clinic"
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    },
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      "y": 17.200161,
      "z": 0,
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    "confidenceFactor": 104,
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        "campus": "Nortech Campus",
        "building": "Nortech-1",
        "floor": "1st Floor",
        "floorAesUid": 727035700041482200,
        "zones": ""
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    },
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      "unit": "FEET"
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    "confidenceFactor": 80,
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    "state": null,
    "gwMacAddr": null,
    "manufacturer": "Cisco Systems, Inc"
  },
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    "mapInfo": {
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      "mapHierarchyDetails": {
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        "building": "Nortech-1",
        "floor": "1st Floor",
        "floorAesUid": 727035700041482200,
        "zones": "CMX Bar"
      }
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},
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            "building": "Nortech-1",
            "floor": "1st Floor",
            "floorAesUid": 727035700041482200,
            "zones": "Tm"
        }
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        "y": 25.986582,
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        "lastLocatedTime": "2017-11-30T03:13:08.856-0800"
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        "unit": "DEGREES"
    },
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        "building": "Nortech-1",
        "floor": "1st Floor",
        "floorAesUid": 727035700041482200,
        "zones": "CMX Bar"
      }
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      "z": 0,
      "unit": "FEET"
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    "confidenceFactor": 120,
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    "containmentLevel": null,
    "state": null,
    "gwMacAddr": null,
    "manufacturer": "Cisco Systems, Inc"
  },
  {
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    "mapInfo": {
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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": 27.811598,
      "z": 0,

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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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        "lastLocatedTime": "2017-11-30T01:26:29.802-0800"
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        "unit": "DEGREES"
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    "manufacturer": "Cisco Systems, Inc"
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        "building": "Nortech-1",
        "floor": "1st Floor",
        "floorAesUid": 727035700041482200,
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      "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 97: API History**

Release	Modification
Cisco CMX Release 10.4	This API is introduced.

# Active Interferers V3 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 98: Parameter Details*

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

### 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/v3/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/v3/interferers/floorId=<floorId>
```

For Example:

```
http://10.0.0.1/api/location/v3/interferers/floorId=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/v3/interferers?page=<pagenumber>&pageSize=<pagesize>
```

For Example:

```
http://10.0.0.1/api/location/v3/interferers/page=1&pageSize=2
```

**Sample Output**

```
http://<cmx-ip-address>/api/location/v3/interferers
```

```
[
  {
    "notificationType": "locationupdate",
    "subscriptionName": "CMX_Api_Server_Notification_1",
    "eventId": 6831579,
    "locationMapHierarchy": "System Campus>WLC-244-43>WLC-244-43-F1",
    "locationCoordinate": {
      "x": 47.40406,
      "y": 16.334118,
      "z": 0,
      "unit": "FEET"
    },
    "geoCoordinate": {
      "latitude": -999,
      "longitude": -999,
      "unit": "DEGREES"
    },
    "confidenceFactor": 208,
    "apMacAddress": "NOT APPLICABLE",
    "associated": false,
    "username": "NOT APPLICABLE",
    "ipAddress": [
      "NOT APPLICABLE"
    ],
    "ssid": "NOT APPLICABLE",
    "band": "NOT APPLICABLE",
    "floorId": "727001524986708012",
    "entity": "INTERFERERS",
    "deviceId": "a3:4f:c0:00:00:96",
  }
]
```

```

    "lastSeen": "2020-11-20T07:36:12.233-0800",
    "tagTelemetryList": null,
    "tagBatteryInfo": null,
    "tagVendorData": null,
    "bleTagInfo": null,
    "locComputeType": "RSSI",
    "tagLastBeaconTime": null,
    "tagLastBeaconSequenceNumber": 0,
    "tagManufacturer": "Unknown",
    "rawLocation": {
      "rawX": -999,
      "rawY": -999,
      "unit": "FEET"
    },
    "maxDetectedRssi": {
      "apMacAddress": "b0:8b:cf:54:5c:80",
      "band": "IEEE_802_11_A",
      "slot": 0,
      "rssi": -67,
      "antennaIndex": 1,
      "lastHeardInSeconds": 0
    },
    "hierarchyDetails": {
      "campusParents": null,
      "campus": {
        "id": "1601308104289",
        "name": "System Campus"
      },
      "building": {
        "id": "727001524986708011",
        "name": "WLC-244-43"
      },
      "floor": {
        "id": "727001524986708012",
        "name": "WLC-244-43-F1"
      },
      "zones": null
    },
    "rssiEntries": [
      {
        "apMacAddress": "b0:8b:cf:54:5c:80",
        "band": "IEEE_802_11_A",
        "slot": 0,
        "antennaIndex": 1,
        "rssi": -67,
        "lastHeardSecs": 0
      }
    ],
    "timestamp": 1605886572233,
    "sourceNotification": "127.0.0.1",
    "sourceNotificationKey": "127.0.0.1,1",
    "notificationTime": "1605886572236",
    "macAddress": "a3:4f:c0:00:00:96"
  }
}
]

```

## GET: Get total number of interferers

### Description

This API returns number of interferers

**HTTP Method**

GET

**Resource URI**

/api/location/v3/interferers/count

**Requires OAuth**

N

**Parameters**

None.

**Content Type**

application/json

**Sample Output**

http://<cmx-ip-address>/api/location/v3/interferers/count

```
{  
  "totalCount": 1  
}
```

# Active Rogue APs V3 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 99: 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",
    "floorId": "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 100: API History*

Release	Modification
Cisco CMX Release 10.4	This API is introduced.
Cisco CMX Release 10.6.2-89	This API was modified. The <code>floorRefId</code> component is replaced with <code>floorId</code> .

**GET: Active Rogue AP count****Description**

This API returns the count of active rogue APs.

**HTTP Method**

GET

**Resource URI**

/api/location/v3/rogueaps/count

**Requires OAuth**

N

**Parameters**

None.

**Content Type**

application/json

**Sample Output (JSON)**

```
{
  "totalCount": 280
}
```

**API History***Table 101: 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/v3/roguaps

### Requires Basic Auth

N

### Parameters

None.

### Content Type

application/json

### Sample Output

```
{
  "notificationType": "locationupdate",
  "subscriptionName": "CMX_Api_Server_Notification_1",
  "eventId": 7791838,
  "locationMapHierarchy": "System Campus>WLC-244-43>WLC-244-43-F1",
  "locationCoordinate": {
    "x": 57.154472,
    "y": 38.875927,
    "z": 0,
    "unit": "FEET"
  },
  "geoCoordinate": {
    "latitude": -999,
    "longitude": -999,
    "unit": "DEGREES"
  },
  "confidenceFactor": 48,
  "apMacAddress": "NOT APPLICABLE",
  "associated": false,
  "username": "NOT APPLICABLE",
  "ipAddress": [
    "NOT APPLICABLE"
  ],
  "ssid": "NOT APPLICABLE",
  "band": "NOT APPLICABLE",
  "floorId": "727001524986708012",
  "entity": "ROGUE APs",
  "deviceId": "2c:57:41:89:99:cf",
  "lastSeen": "2021-05-19T03:10:05.160-0700",
  "rawLocation": {
    "rawX": -999,
```

```

        "rawY":-999,
        "unit":"FEET"
    },
    "tagVendorData":null,
    "bleTagInfo":null,
    "locComputeType":"RSSI",
    "manufacturer":"Cisco Systems, Inc",
    "maxDetectedRssi":{
        "apMacAddress":"b0:8b:cf:54:5c:80",
        "band":"IEEE_802_11_A",
        "slot":1,
        "rssi":-64,
        "antennaIndex":0,
        "lastHeardInSeconds":106
    },
    "hierarchyDetails":{
        "campusParents":null,
        "campus":{
            "id":"1617954166291",
            "name":"System Campus"
        },
        "building":{
            "id":"727001524986708011",
            "name":"WLC-244-43"
        },
        "floor":{
            "id":"727001524986708012",
            "name":"WLC-244-43-F1"
        },
        "zones":null
    },
    "rssiEntries":[
        {
            "apMacAddress":"b0:8b:cf:54:5c:80",
            "band":"IEEE_802_11_A",
            "slot":1,
            "antennaIndex":0,
            "rssi":-64,
            "lastHeardSecs":106
        }, .....
    ],
    "timestamp":1621419005160,
    "sourceNotification":"127.0.0.1",
    "sourceNotificationKey":"127.0.0.1,3",
    "notificationTime":"1621419005175",
    "macAddress":"2c:57:41:89:99:cf"
}

```

## API History

**Table 102: API History**

Release	Modification
Cisco CMX Release 10.4	This API is introduced.
Cisco CMX Release 10.6.3	This command was modified to support V3.



## 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 103: 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,

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    "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": {
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      "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,
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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",

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"clientMacs": null,
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"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": {
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"longitude": -121.9597514396562,
"unit": "DEGREES"
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"rawLocation": null,
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"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": ""
}

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    "className": "",
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    "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": {
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      "firstLocatedTime": "2017-11-29T15:14:36.041-0800",
      "lastLocatedTime": "2017-11-30T18:57:44.823-0800"
    },
    "historyLogReason": "DISTANCE_CHANGE",
    "geoCoordinate": {
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      "longitude": -121.95977267296477,
      "unit": "DEGREES"
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    "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
  },

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{
  "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": {
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    "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"
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  "changedOn": 1512094186758,
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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>Tm",
    "mapHierarchyDetails": {

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        "campus": "Nortech Campus",
        "building": "Nortech-1",
        "floor": "1st Floor",
        "floorAesUid": 727035700041482200,
        "zones": "Tm"
    }
},
"mapCoordinate": {
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    "y": 32.926517,
    "z": 0,
    "unit": "FEET"
},
"currentlyTracked": false,
"confidenceFactor": 96,
"locComputeType": null,
"statistics": {
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    "lastLocatedTime": "2017-11-30T18:00:03.312-0800"
},
"historyLogReason": "DISTANCE_CHANGE",
"geoCoordinate": {
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    "longitude": -121.9597454491154,
    "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,
"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"
        }
    }
}

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    }
  },
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    "x": 62.549908,
    "y": 29.465967,
    "z": 0,
    "unit": "FEET"
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  "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"
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  "historyLogReason": "DISTANCE_CHANGE",
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    "longitude": -121.95984268036422,
    "unit": "DEGREES"
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  "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": 10.559283,
    "y": 15.158403,

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        "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"
    },
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    "changedOn": 1512091171311,
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    "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": 14.188843,
        "y": 17.020206,
        "z": 0,
        "unit": "FEET"
    },
    "currentlyTracked": false,
    "confidenceFactor": 72,

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"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": {
  "latitude": 37.42242783390771,
  "longitude": -121.95966877400087,
  "unit": "DEGREES"
},
"rawLocation": null,
"networkStatus": "INACTIVE",
"changedOn": 1512091066313,
"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": 4.1660514,
    "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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    },
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      "longitude": -121.95963271298406,
      "unit": "DEGREES"
    },
    },
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    "changedOn": 1512087365823,
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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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      "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,

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        "unit": "DEGREES"
    },
    "rawLocation": null,
    "networkStatus": "INACTIVE",
    "changedOn": 1512082823871,
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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",
        "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"
    },
    "rawLocation": null,
    "networkStatus": "INACTIVE",
    "changedOn": 1512076016320,

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    "totalClients": 0,
    "numOfDetectingAPs": 0,
    "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": 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",
    "geoCoordinate": {
      "latitude": 37.42243247689681,
      "longitude": -121.95968352117679,
      "unit": "DEGREES"
    },
    "rawLocation": null,
    "networkStatus": "INACTIVE",
    "changedOn": 1512067098315,
    "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": "2017-11-30T22:58:26.942-0800",
      "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",
        "floorAesUid": 727035700041482200,
        "zones": "Tm"
      }
    },
    "mapCoordinate": {
      "x": 33.190983,
      "y": 26.26249,
      "z": 0,
      "unit": "FEET"
    },
    "currentlyTracked": false,
    "confidenceFactor": 64,
    "locComputeType": null,
    "statistics": {
      "currentServerTime": "2017-11-30T22:58:26.943-0800",
      "firstLocatedTime": "2017-11-29T15:14:36.041-0800",
      "lastLocatedTime": "2017-11-30T08:28:47.302-0800"
    },
    "historyLogReason": "DISTANCE_CHANGE",
    "geoCoordinate": {
      "latitude": 37.42245356475765,
      "longitude": -121.95973711833454,
      "unit": "DEGREES"
    },
    "rawLocation": null,
    "networkStatus": "INACTIVE",
    "changedOn": 1512059329303,
    "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": 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,
    "networkStatus": "INACTIVE",
    "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"
    },
    "currentlyTracked": false,
    "confidenceFactor": 88,
    "locComputeType": null,
    "statistics": {
      "currentServerTime": "2017-11-30T22:58:26.944-0800",
      "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",
  "firstLocatedTime": "2017-11-29T15:14:36.041-0800",
  "lastLocatedTime": "2017-11-30T04:30:22.379-0800"
},
"historyLogReason": "DISTANCE_CHANGE",
"geoCoordinate": {
  "latitude": 37.422384332292076,
  "longitude": -121.95961977333023,
  "unit": "DEGREES"
},
"rawLocation": null,
"networkStatus": "INACTIVE",
"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 104: API History**

Release	Modification
Cisco CMX Release 10.4	This API is introduced.

# Active Tags V3 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 105: 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",
    "floorId": "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: All Tags

### Description

This API returns all tags.

### HTTP Method

GET

### Resource URI

/api/location/v3/tags

### Requires OAuth

N

### Parameters

None.

### Content Type

application/json

### Sample Output (JSON)

```
{
  "notificationType": "locationupdate",
  "subscriptionName": "CMX_Api_Server_Notification_1",
  "eventId": 7767626,
  "locationMapHierarchy": "System Campus>WLC-244-43>WLC-244-43-F1",
  "locationCoordinate": {
    "x": 52.245846,
    "y": 80.56613,
    "z": 0,
    "unit": "FEET"
  },
  "geoCoordinate": {
    "latitude": -999,
    "longitude": -999,
    "unit": "DEGREES"
  },
  "confidenceFactor": 32,
  "apMacAddress": "NOT APPLICABLE",
  "associated": false,
  "username": "NOT APPLICABLE",
  "ipAddress": [
    "NOT APPLICABLE"
  ],
  "ssid": "NOT APPLICABLE",
  "band": "NOT APPLICABLE",
  "floorId": "727001524986708012",
  "entity": "TAGS",
  "deviceId": "00:0c:cc:0b:bd:e9",
  "lastSeen": "2021-05-19T02:44:19.153-0700",
  "rawLocation": {
    "rawX": -999,
```

```

        "rawY": -999,
        "unit": "FEET"
    },
    "tagVendorData": {
        "vendorId": 3276,
        "elementId": 0,
        "data": "AAATAA==",
        "lastReceivedTime": "2021-05-19T02:44:17.046-0700",
        "lastReceivedSeqNum": 3999
    },
    "bleTagInfo": null,
    "locComputeType": "RSSI",
    "manufacturer": "Aer scout Ltd.",
    "maxDetectedRssi": {
        "apMacAddress": "00:ee:ab:18:f0:40",
        "band": "IEEE_802_11_B",
        "slot": 0,
        "rssi": -33,
        "antennaIndex": 0,
        "lastHeardInSeconds": 4
    },
    "hierarchyDetails": {
        "campusParents": null,
        "campus": {
            "id": "1617954166291",
            "name": "System Campus"
        },
        "building": {
            "id": "727001524986708011",
            "name": "WLC-244-43"
        },
        "floor": {
            "id": "727001524986708012",
            "name": "WLC-244-43-F1"
        },
        "zones": null
    },
    "rssiEntries": [
        {
            "apMacAddress": "00:ee:ab:18:f0:40",
            "band": "IEEE_802_11_B",
            "slot": 0,
            "antennaIndex": 0,
            "rssi": -33,
            "lastHeardSecs": 4
        },
        .....
    ],
    "timestamp": 1621417459153,
    "sourceNotification": "127.0.0.1",
    "sourceNotificationKey": "127.0.0.1,1",
    "notificationTime": "1621417459158",
    "macAddress": "00:0c:cc:0b:bd:e9"
}

```

## GET: Active RFID Tags Count

### Description

This API returns active RFID tags count.

**HTTP Method**

GET

**Resource URI**

/api/location/v3/tags/count

**Requires OAuth**

N

**Parameters**

None.

**Content Type**

application/json

**Sample Output**

```
{
  "totalCount": 6
}
```

## 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",
    "floorId": "727035700041482264"
  },
  {
    "macAddress": "00:78:88:e6:21:89",
    "floorId": "727035700041482264"
  }
]
```

### API History

**Table 106: API History**

Release	Modification
Cisco CMX Release 10.4	This API is introduced.
Cisco CMX Release 10.6.2-89	This API was modified. The <code>floorRefId</code> component is replaced with <code>floorId</code> .



# 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 107: 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 224
- [Repeat Visitors API](#), on page 239
- [Dwell API](#), on page 252
- [Visitors API](#), on page 273
- [Summary API](#), on page 289
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- [Passersby API](#), on page 309

# 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 108: 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 109: Parameter Details*

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

**Content Type**

application/json

**Usage Guidelines**

https://&lt;tenant-id&gt;.cmxcisco.com/api/presence/v1/connected/count/today?siteId=&lt;Site ID&gt;

**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 110: 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 111: 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 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/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 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/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 114: Parameter Details*

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



**Content Type**

application/json

**Usage Guidelines**

https://&lt;tenant-id&gt;.cmxcisco.com/api/presence/v1/connected/total/3days?siteId=&lt;Site ID&gt;

**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 115: Parameter Details*

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

**Content Type**

application/json

**Usage Guidelines**

https://&lt;tenant-id&gt;.cmxcisco.com/api/presence/v1/connected/total/lastweek?siteId=&lt;Site ID&gt;

**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 116: Parameter Details*

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

**Content Type**

application/json

**Usage Guidelines**

https://&lt;tenant-id&gt;.cmxcisco.com/api/presence/v1/connected/total/lastmonth?siteId=&lt;Site ID&gt;

**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 117: 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 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/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 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/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 120: 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 121: 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 122: 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 123: 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 124: 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 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/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 126: 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 127: 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 128: 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 129: 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 130: 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 131: 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 132: 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 133: 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 134: 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 135: 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 136: 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 137: 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 138: 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 139: 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 140: 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 141: 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 142: 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 143: 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 144: 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 145: 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 146: 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 147: 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 148: 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 149: 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 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 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 151: 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 152: 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 153: 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 154: 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 155: 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 156: 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 157: 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 158: 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 159: 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 160: 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 161: 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 162: 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 163: 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 164: 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 165: 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 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
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 167: 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 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 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 169: 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 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 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 171: 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 172: 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 173: 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 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 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 175: 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 176: 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 177: 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 178: 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 179: 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 180: 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 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 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 182: 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 183: 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 184: 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 185: 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 186: 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 187: 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 188: 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 189: 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 190: 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 191: 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 192: 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 193: 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 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/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 195: 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 196: 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 197: 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 198: 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 199: 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 200: 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 201: 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 202: 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 203: 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 204: 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 205: 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://&lt;tenant-id&gt;.cmxcisco.com/api/presence/v1/excluded?siteId=&lt;Site ID&gt;

**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 206: 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://&lt;tenant-id&gt;.cmxcisco.com/api/presence/v1/clients?siteId=&lt;Site ID&gt;&amp;macaddress=&lt;MAC address&gt;

**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 207: API History*

<b>Release</b>	<b>Modification</b>
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 208: 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 209: 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 210: 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 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/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 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/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 213: 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/passergyby/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/passergyby/total/3days

**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/passergyby/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 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/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 216: 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 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/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 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/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 219: 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 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/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 221: 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 222: 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 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/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 224: 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 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



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
  }
}
```

