

# CA Performance Management OpenAPI Sample Apps

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# What is it about?

- OpenAPI
  - Flexible API to pull meta and metric data from Data Repository
  - Built on Odata 2.0 standard
  - Range of output formats available (csv, json, ....)
- Use Cases
  - Feed external reporting tools
  - Display data through custom app in CA PC browser view
  - Samples provided in <https://github.com/CA-PM/>

# Device polled item count

- context parameter: ItemIdDA (= group)

Device Item Count



CA PM

Show 10 entries

Search:

Name	IP	Items
DataAggregator:10.130.64.130	10.130.64.130	376
holu02-rhel.ca.com	10.130.64.109	23
holu02-IMPCDC	10.130.64.218	19
holu02.ca.com	130.119.109.97	15
holu02-IMDR2	10.130.64.204	15
holu02-vna.ca.com	10.130.64.173	14

**Name** **IP** **Items**

Showing 1 to 6 of 6 entries

Previous

1

Next

# Top Interface Discards with Ranking

- Context parameters: ItemIdDA, start/endTime, metricName, metricDisplayName, metricThreshold, limit

Top Interface Discards with Rank ▲ ⚙ ?

All Groups

Toggle column: **HostName - Address - Description - Alias - Speed In/Out**

Show  entries Search:

Address	Description	Speed In/Out	Discards	Rank	Prev Discards	Prev Rank
10.241.248.157	eth1	10 Gbps/10 Gbps	533.44	11	245.40	10
10.241.248.157	eth3	1 bps/1 bps	104.20	12	91.40	19
10.241.248.121	fei1	10 Mbps/10 Mbps	104.10	13	100.70	17
10.241.248.157	eth4	1 bps/1 bps	103.78	14	119.40	13
10.241.248.157	eth7	1 bps/1 bps	101.57	15	123.20	12
10.241.248.157	eth5	1 bps/1 bps	100.78	16	103.20	16
10.241.248.157	eth2	1 bps/1 bps	99.10	17	91.20	20
10.241.248.157	eth8	1 bps/1 bps	98.83	18	81.40	21
10.241.248.121	fei2	10 Mbps/10 Mbps	97.06	19	99.09	18
10.241.248.157	eth6	1 bps/1 bps	96.39	20	113.40	14

Showing 11 to 20 of 21 entries

Previous 1  3 Next

## Reference:

<https://communities.ca.com/docs/DOC-231168684>



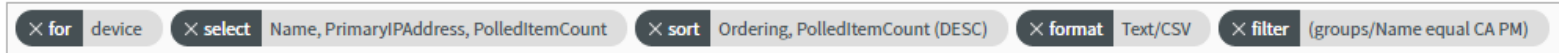
# What to get it?

- Usage Model
  - Use Query Builder to define / test query
  - Create your batch script or application (e.g. JavaScript)
    - Embed the generated query
    - Make use of existing sample apps and graphic libraries (JavaScript)
  - Apps can live in CA PC browser view

# Workflow

- Open query builder: <http://DA-HOST:8581/odataquery> (CA PC user/pw)
- Define query

## Query Expression



- Verify result

```
1 "Name", "PrimaryIPAddress", "PolledItemCount"
2 DataAggregator:10.130.64.130,10.130.64.130,376
3 hollu02-rhel.ca.com,10.130.64.109,23
4 hollu02-IMPCDC,10.130.64.218,19
5 hollu02.ca.com,130.119.109.97,15
6 hollu02-IMDR2,10.130.64.204,15
7 hollu02-vna.ca.com,10.130.64.173,14
8
```

for app usage, use output format JSON

```
1 {
2   "d": {
3     "__count": "0",
4     "results": [
5       {
6         "Name": "DataAggregator:10.130.64.130",
7         "PrimaryIPAddress": "10.130.64.130",
8         "PolledItemCount": 376
9       },
10      {
11        ...
12      }
13    ]
14  }
15 }
```

- Copy OData URL for use in app

## ▼ OData URL

[http://hollu02-imdadr:8581/odata/api/devices?\\$orderby=PolledItemCount desc&\\$format=json&\\$select=Name,PrimaryIPAddress,PolledItemCount&\\$filter=\(\(groups/Name eq 'CA PM'\)\)](http://hollu02-imdadr:8581/odata/api/devices?$orderby=PolledItemCount desc&$format=json&$select=Name,PrimaryIPAddress,PolledItemCount&$filter=((groups/Name eq 'CA PM')))

# CA PC App Hosting

- CA PC File system: apps with supporting libraries

```
[root@hol1u02-IMPDC tableView]# pwd
/opt/CA/PerformanceCenter/PC/webapps/pc/apps/user/tableView
[root@hol1u02-IMPDC tableView]# ll
total 104
-rw-r--r-- 1 root root 4606 Aug  9 08:34 DeviceCounts.html
-rwxrwxr-x 1 root root 3135 Jul  2 12:59 DeviceItemCount.html
-rwxrwxr-x 1 root root 9375 Jul 12 02:03 DevicesWithoutReachAvail.html
-rwxrwxr-x 1 root root 9792 Jul  1 02:30 IFMetricRanking.html
-rwxrwxr-x 1 root root 9894 Jul  2 12:19 IFTopNwithRank.html
-rwxrwxr-x 1 root root 11115 Jul  7 10:17 IFTopNwithRankv11.html
drwxrwxr-x 3 root root 4096 Aug  8 03:59 lib
```

- CA PC Browser View: local url with context parameters

Title:*	Device Item Count												
Sub Title:	User Group: CA PM												
URL:*	/pc/apps/user/tableView/DeviceItemCount.html?id={ItemIdDA}&limit=1000												
URL Parameter:*	{Culture} <input type="button" value="Append To URL"/>												
Height:*	<table border="1"><thead><tr><th>Property</th><th>Value</th></tr></thead><tbody><tr><td>{Culture}</td><td>en-US</td></tr><tr><td>{ItemDesc}</td><td></td></tr><tr><td>{ItemId}</td><td>113</td></tr><tr><td>{ItemIdDA}</td><td>858</td></tr><tr><td>{ItemName}</td><td>CA PM</td></tr></tbody></table>	Property	Value	{Culture}	en-US	{ItemDesc}		{ItemId}	113	{ItemIdDA}	858	{ItemName}	CA PM
Property	Value												
{Culture}	en-US												
{ItemDesc}													
{ItemId}	113												
{ItemIdDA}	858												
{ItemName}	CA PM												



# The App

```
1 <!DOCTYPE html>
2 <html>
3 <head>
53 <body>
54
55 <table id="example" class="display compact" cellspacing="0" width="100%">
73 <script>
```

```
89 var id=getQueryVariable("id") // id={itemIdDa}
90 var limit=getQueryVariable("limit")
91
92 // Build URL using parameters
93 var baseUrl="/pc/odata/api/devices?$format=json&$select=Name,PrimaryIPAddress,PolledItemCount&$orderby=PolledItemCount desc";
94 var filter="$filter=((groups/ID eq " + id + "))";
95 var limit="$top=" + limit;
96
97 var url=baseUrl + "&" + filter + "&" + limit;
98 console.log("CA PC APP: DeviceItemCount OpenAPI URL: " + url)
99
100 $(document).ready(function() {
101   $('#example').dataTable( {
102     "ajax": {
103       "url": url,
104       "dataSrc": "d.results"
105     },
106     "columns": [
107       {"data": "Name"},
108       {"data": "PrimaryIPAddress"},
109       {"data": "PolledItemCount"},
110     ],
111     order: [[ 2, "desc" ]]
112   });
113 });
```



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