

*EMEA DevXchange 2017*

# Hands-On Lab: Customize Dashboards for an Enhanced Network Management Experience with CA Performance Management

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# Objectives – Your Data, Your Way

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1. Learn the framework to fully leverage CAPC to provide new perspectives into infrastructure and performance

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2. Understand visualization options to present data in the most impactful ways

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3. Simplify Operations and tailor fit the way your teams, customers, and business partners consume and interact with data

# Understanding the Performance Center Way

Data without Context is just noise



"The ability to take data — to be able to understand it, to process it, to extract value from it, to visualize it, to communicate it — that's going to be a hugely important skill in the next decades."


Hal Varian, Google's Chief Economist

# Context – The Lens to Focus Your Data

## Site Statistics - Business Hours

Group: My Assigned Groups > All Groups Site: Regions > US Central [\[change\]](#)

 admin

 View Suppression (on)

Last 7 Days: Apr 20, 2017 10:08 AM - Apr 27, 2017 10:08 AM [\[change\]](#)

### Top Interface Utilization In - Trend/Table

Site: US Central Business Hours Filter: Corporate Hours

Resolution: Hourly Roll-up

### Top Interface Utilization Out - Trend/Table

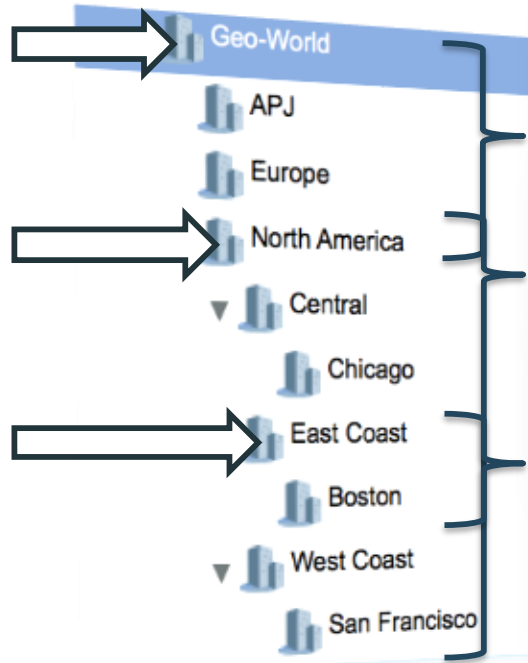
 Site: US East Coast Business Hours Filter: Corporate Hours  Time Range: Last 24 Hours

Resolution: Hourly Roll-up

# Workflows – Easily get to context that matters

The screenshot displays the CA Performance Center interface. At the top, there's a navigation bar with tabs: Dashboards, Inventory, Reports, My Settings, System Health, and Administration. Below this, a search bar contains the text "NYC Core". The search results show a table of devices, with "NYC Core" selected. A dropdown menu is open, showing options: Details, Set Connection, App, Interface Health, IP Performance, Calendar Heat Charts, and Custom View - Infrastructure Management. An arrow points from the "Calendar Heat Charts" option to a detailed view of the interface. This view shows the "Interface Pages" for Router: cisco2621-10.253.223.29, Interface: Se0/0.210 - Serial0/0.210, which is "Up/Up" and "ACTIVE". It also displays a "Calendar Heat Chart - Average Percent Utilization Out" for the same interface, showing utilization over time (Date: 27/04/2017 to 04/05/2017) with a color-coded heatmap (Green, Yellow, Orange, Red).

# Simple Navigation & Aggregation through Hierarchies



Group: My Assigned Groups > All Groups Site: Geo-World [\[change\]](#) Custom Time Range: Apr 10, 2017 11:24 PM - Apr 14, 2017 11:24 PM [\[change\]](#)

Interface Health by Site Summary - Interface

Site: Geo-World

Metric Calculate Level: by Group

🔴 Critical Status Start 🟡 Major Status Start 🟡 Minor Status Start 🟢 Normal Status Start Weight Applied

Group/Sub-Group Name	Health Indicator	Utilization In - 95 Percentile	Utilization Out - 95 Percentile	Percent Discards In - Average	Percent Errors Out - Average	Availability - Minimum
Group: My Assigned Groups Site: North America <a href="#">[change]</a> Custom Time Range: Apr 10, 2017 11:24 PM - Apr 14, 2017 11:24 PM <a href="#">[change]</a>						

Interface Health by Site Summary - Interface

Site: North America

Metric Calculate Level: by Group

🔴 Critical Status Start 🟡 Major Status Start 🟡 Minor Status Start 🟢 Normal Status Start Weight Applied

Group/Sub-Group Name	Health Indicator	Utilization In - 95 Percentile	Utilization Out - 95 Percentile	Percent Discards In - Average	Percent Errors Out - Average	Availability - Minimum
Group: My Assigned Groups > All Groups Site: Geo-World > North America > East Coast <a href="#">[change]</a> Custom Time Range: Apr 10, 2017 11:24 PM - Apr 14, 2017 11:24 PM <a href="#">[change]</a>						

Interface Health by Site Summary - Interface

Site: East Coast Business Hours Filter: Corporate Hours

Metric Calculate Level: by Group

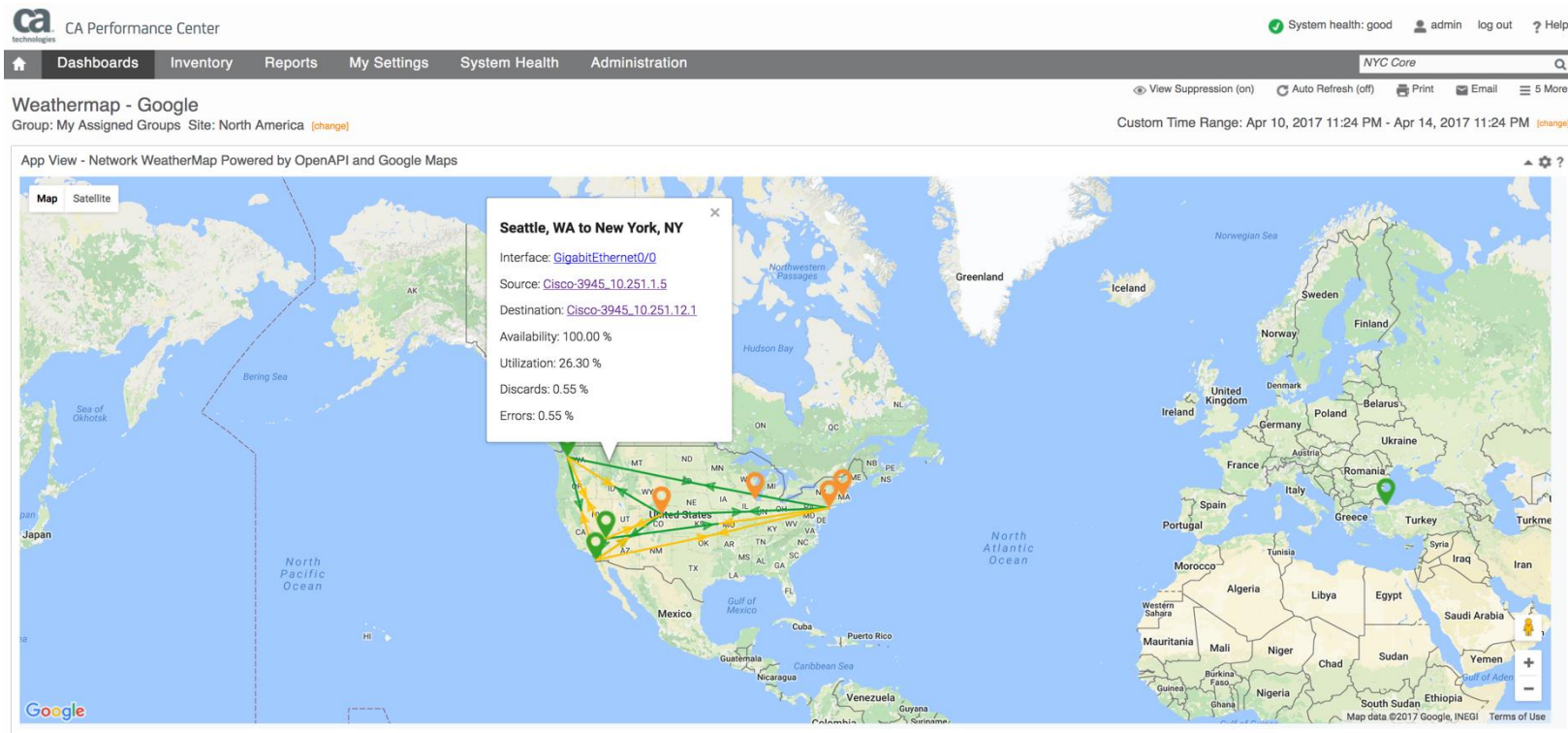
🔴 Critical Status Start 🟡 Major Status Start 🟡 Minor Status Start 🟢 Normal Status Start Weight Applied

Group/Sub-Group Name	Health Indicator	Utilization In - 95 Percentile	Utilization Out - 95 Percentile	Percent Discards In - Average	Percent Errors Out - Average	Availability - Minimum
East Coast	🟢 0%	🟢 29.87%	🟢 29.85%	🟢 0.55%	🟢 0.55%	🟢 100%

Search  Page 1 of 1 Displaying 1 - 1 of 1 Max Per Page 25

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# Customize with New Views and OpenAPI Apps



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# Demo/Lab

- Use Case 1: Custom dashboard about firewall health
- Use Case 2: Custom dynamic context page
- Use Case 3: Use Performance Center app to update device attributes



# Use Case 1: Custom Dashboard about Firewall Health

## devx1-Firewall for devx1

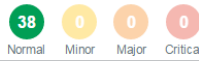
Group: My Assigned Groups [change]

Last Hour: May 2, 2017 10:42 AM - 11:42 AM [change]

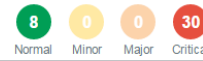
### IM Card View (Top) - Traffic Bandwidth Utilization

Permission Group: My Assigned Groups

38 Items Total Logged - Average Rate

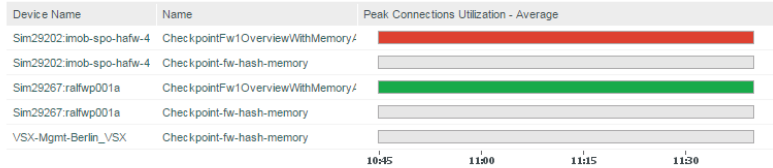


38 Items Total Drop Packets - Average



### IM Time Bar Chart (Top) - Firewall - Peak Connections Utilization - Average

Permission Group: My Assigned Groups



Search

No Data To Display Normal Status Start Minor Status Start Major Status Start Critical

### IM Group Scorecard Table - Traffic Bandwidth Utilization

Permission Group: My Assigned Groups

Metric Calculate Level: by Component

Critical Status Start Major Status Start Minor Status Start Normal Status Start Weight Applied

Group/Item Name	Device Name	Health Indicator	Accept Packets In - Ave...	Accept Packets Out - A...	Rejected P
My Assigned Groups	My Assigned Groups	25%	79.9 Pkts	80.9 Pkts	79.1

### Inventory Hierarchy

DevXChange 2017

- DevXChange 2017
  - devx1
    - devx10
      - devx2
        - devx3
          - devx4
            - devx5
              - devx6
                - devx7
                  - devx8
                    - devx9
                      - Ditton Park
                        - Firewall

### Devices

| Name                       | Type   | Domain        | Address       | Description                                  | Life Cyc... |
|----------------------------|--------|---------------|---------------|--|-------------|
| Bayview-1                  | Router | Default Do... | 192.168.42... | Cisco Internetwork Operating System Softw... | Active      |
| cisco2621-96.7.c.a.com     | Router | Default Do... | 192.168.42... | Cisco Internetwork Operating System Softw... | Active      |
| cisco2621-96.8.c.a.com     | Router | Default Do... | 192.168.42... | Cisco Internetwork Operating System Softw... | Active      |
| Cisco7505-1                | Router | Default Do... | 192.168.42... | Cisco Internetwork Operating System Softw... | Active      |
| CiscoA55300-1              | Router | Default Do... | 192.168.42... | Cisco Internetwork Operating System Softw... | Active      |
| clgrab21-ec09              | Router | Default Do... | 192.168.42... | 0  | Active      |
| Nexus-2                    | Router | Default Do... | 192.168.20... | Cisco NX-OS(tm) ucs, Software (ucs-6100...   | Active      |
| PIX_FireWall 5             | Router | Default Do... | 192.168.42... | Cisco PIX Firewall Version 6.1(1)            | Active      |
| Rtr7505-2                  | Router | Default Do... | 192.168.42... | WS-C2961 IOS Version A.5.4.1 Compiled by ... | Active      |
| Sim20674-SD-NO-Svg-Cor...  | Router | Default Do... | 10.241.249... | Cisco IOS Software, C3750E Software (C37...  | Active      |
| Sim22061-CAL02LAN01.glo... | Router | Default Do... | 10.241.250... | Cisco IOS Software, C3750 Software (C375...  | Active      |
| Sim29202:imob-spo-hafw-4   | Router | Default Do... | 10.241.250.5  | Linux imob-spo-hafw-4 2.6.18-52c0 #1 SMP...  | Active      |

Search

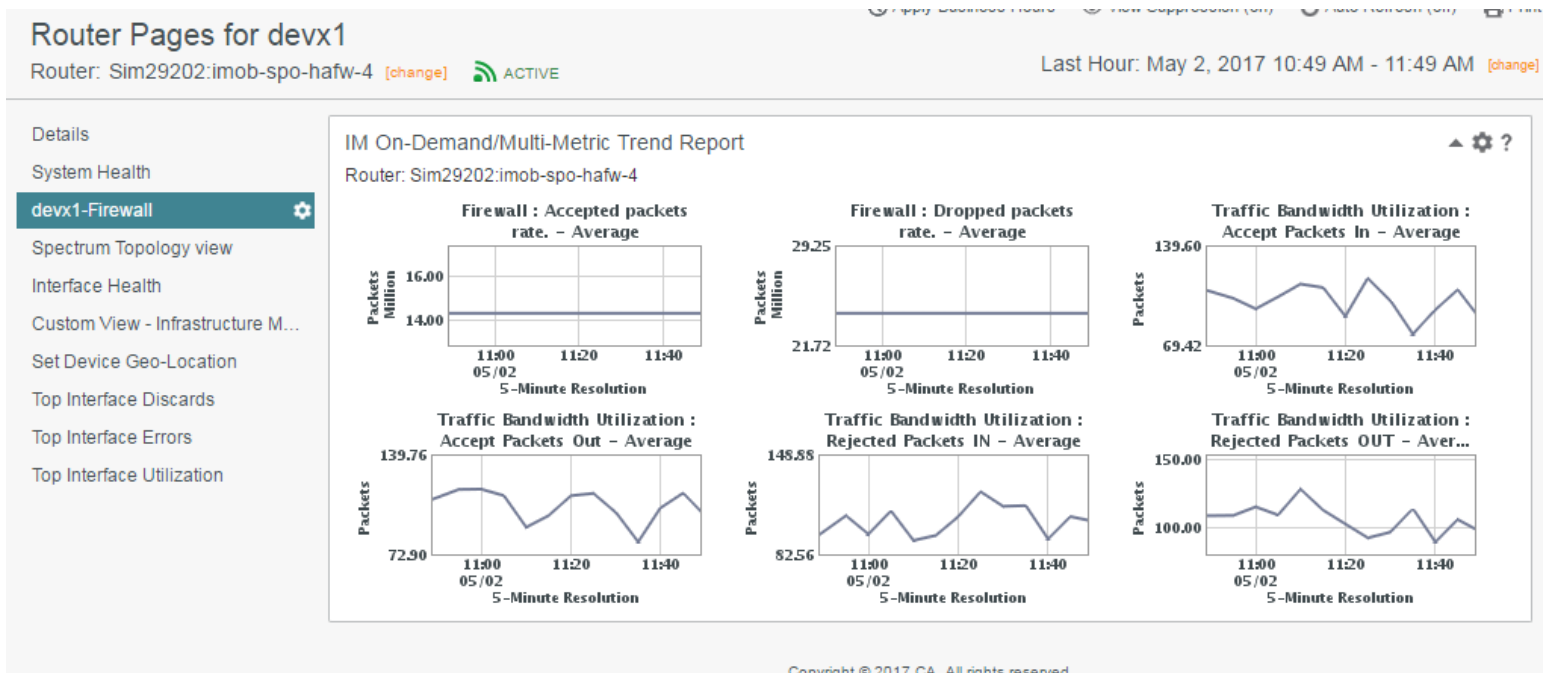
Page 1 of 1 Displaying 1 - 14 of 14

On Demand

### Firewall Statistics

| Name                      | Description                 | Device                   | Life Cycle State | Domain         |
|---------------------------|-----------------------------|--------------------------|------------------|----------------|
| Checkpoint-fw-hash-mem... | Checkpoint-fw-hash-mem...   | VSX-Mgmt-Berlin_VSX      | Active           | Default Domain |
| Checkpoint-fw-hash-mem... | Checkpoint-fw-hash-mem...   | Sim29202:imob-spo-hafw-4 | Active           | Default Domain |
| Checkpoint-fw-hash-mem... | Checkpoint-fw-hash-mem...   | Sim29267:raflwp001a      | Active           | Default Domain |
| CheckpointFw1Overview...  | Checkpoint Firewall-1 Ov... | Sim29202:imob-spo-hafw-4 | Active           | Default Domain |

# Use Case 2: Custom Dynamic Context Page



# Use Case 3: Use Performance Center App to Update Device Attributes

App View - Device Geo-Tag

Lookup location using Google Maps API

location

Ditton Park

Enter location using City, State or City, Country

Search Google

Geo-Location Details

Longitude

-0.5602

Range: -180 to 180

Latitude

51.4914

Range: -90 to 90

Location Description

Ditton Park

City, State or City, Country

Save Device Location

Devices

User Group: Firewall

| <input type="checkbox"/> Name Alias               | Type   | Address        | Description  | Life Cycle State | Latitude | Longitude | Location Description     |
|---|--------|----------------|--|------------------|----------|-----------|--------------------------|
| <input type="checkbox"/> 10.241.250.251           | Router | 10.241.250.21  | Firewall:VSX-Mgmt-Berlin_VSX                       | Active           | 53.0813  | 8.7981    | Bremen, Neuenstrasse ... |
| <input type="checkbox"/> Sim29202:imob-spo-hafw-4 | Router | 10.241.250.5   | Linux imob-spo-hafw-4 2.6.18-92cp #1 SMP Sun De... | Active           | 51.4914  | -0.5602   | Slough Ditton Park       |
| <input type="checkbox"/> Sim29267:ralfw001a       | Router | 10.241.249.147 | Linux ralfwp001a 2.6.18-92cp86_64 #1 SMP Wed ...   | Active           |          |           |                          |



# What Questions Do You Have?

# THANK YOU!