

# What's New in CA Spectrum 9.4.1

November 2014



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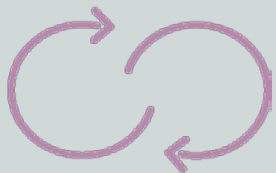
# CA Spectrum 9.4.1

- Update and Enhance CA Spectrum and CA Unified Infrastructure Management\* Integration to Support VMWare
- Key Content:
  - CA Spectrum to CA UIM Integration for VMWare
  - CA Spectrum Mobile Application
  - High Impacting Outages View
  - Device Certification Updates

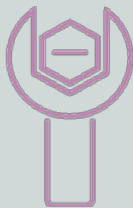
\*CA UIM is formerly known as CA Nimsoft

# CA Spectrum and CA UIM Integration for VMWare Support

# CA UIM Integration



Provide access to storage, and databases will help users gain true end-to-end monitoring and management capabilities



Plan is to leverage CA UIM monitor server and virtualization management capabilities in CA Spectrum



Phased approach starting with server and OS management from CA Spectrum 9.4



CA Spectrum 9.4.1 release includes support for VMWARE virtualization

← CA Unified Infrastructure Management complementing technology →

# Why Integrate CA Spectrum with CA UIM?

The integration provides

## Holistic View

of the server

# &

## Virtualization Availability

within the environment

The integration drives

## Root Cause & Impact Analysis

across networks, systems  
and virtualization

## end-to-end

The integration merges

## Network Management & L2

capabilities from  
CA Spectrum with  
systems management  
from CA UIM

## best of both worlds

The integration allows

## Superior Correlation

between

CA Spectrum and CA UIM  
to drive

## Business Value

for end customers

# Capabilities Available with CA Spectrum 9.4.1

- **Discover** CA UIM Managed VMWare Elements
  - Synchronize the inventory periodically
  - Get VC, ESX and VM Inventory from CA UIM
  - Model servers/VMs in Spectrum
  - Get alarms and drive RCA (like we did with VAIM)
- **Show** UIM Managed elements in the Spectrum hierarchy and topology (with the ESX and VM association)
- **Display** key metrics in Spectrum OneClick sub-views
- **Assert** alarms from CA UIM onto the appropriate model in CA Spectrum OneClick hierarchy
- **Bring** the CA UIM alarms/devices under the purview of Root Cause and Impact Analysis
- **Launch** in context, into CA UIM Console, for advanced metrics, trends

# VMWare Hierarchy under CA Unified Infrastructure Management Manager

Name			
VPN Manager			
bezna01-w2k8vm1 (0x100000)	9	3	26
Chassis Manager (6)		1	
LostFound (8)			
Nimsoft Manager (2)	6		25
Servers (4)			
Virtualization (1)	6		25
VMware (4)	6		25
10.131.0.203 (56)			14
10.134.15.176 (1)			
nvmqa-vc.ca.com (1)			
ITC NVM (1)			
ITC Cluster (5)			
chumu01-esx1.ca.com			
chumu01-esx2.ca.com			
chumu01-esx3.ca.com			
chumu01-esx4.ca.com			
Resources (38)			
brzlm1p.ca.com			
chasr05-w2k3-v2.ca.com			
chasr05-w2k3-v3.ca.com			
chasr05-w2k3-v4			
dinme03-vm11			
gupma05-npc.ca.com			
gupma05-nv.ca.com			
hydlin1			
hydwin1			
i18n-j913			
itcsimrepo.ca.com			
karja06-w2k3-qt			
karja06-w2k8vm2			
karja06-w2k8vm3			

Contents: nvmqa-vc.ca.com of type IP Device

Alarms | Topology | List | Events | Information



nvmqa-vc.ca.com  
IP Device

nvmqa-vc.ca.com [set](#)

IP Device

General Information

CA Spectrum Modeling Information

Asset Information

Reconfiguration



Discover Connections

Multicast Information

Thresholds And Watches

Global Collections Memberships

QoS CPU/Disk/Memory Metric Information



QoS CPU Usage Metrics

QoS CPU Multi Usage Metrics

QoS Memory Metrics

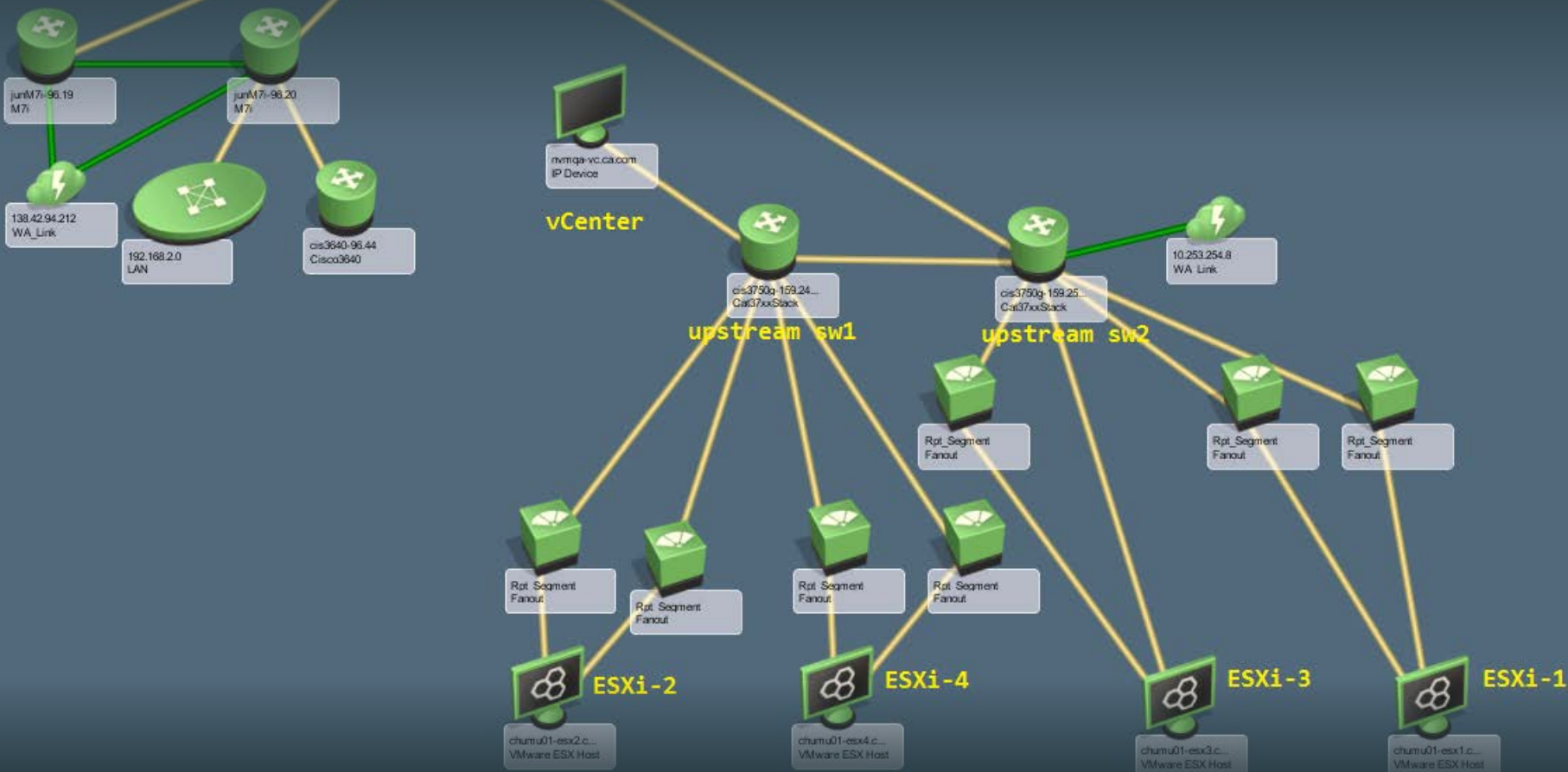
QoS Disk Metrics



# L2 Connectivity for Virtual Environment

The diagram illustrates a network topology for L2 connectivity in a virtual environment. Key components and connections include:

- vCenter**: Connected to **upstream sw1** and **upstream sw2**.
- upstream sw1** (Cisco 3750g-159.24... Cat3750Stack): Connected to **upstream sw2** and four **Rpt\_Segment Fanout** devices.
- upstream sw2** (Cisco 3750g-159.25... Cat3750Stack): Connected to **upstream sw1** and three **Rpt\_Segment Fanout** devices.
- ESXi-1** (chum01-esx1.c... VMware ESX Host): Connected to **upstream sw2** and a **Rpt\_Segment Fanout** device.
- ESXi-2** (chum01-esx2.c... VMware ESX Host): Connected to **upstream sw1** and a **Rpt\_Segment Fanout** device.
- ESXi-3** (chum01-esx3.c... VMware ESX Host): Connected to **upstream sw2** and a **Rpt\_Segment Fanout** device.
- ESXi-4** (chum01-esx4.c... VMware ESX Host): Connected to **upstream sw1** and a **Rpt\_Segment Fanout** device.
- Other Components**: Includes **junM7-96.19 M7i**, **junM7-96.20 M7i**, **cis3640-96.44 Cisco3640**, **192.168.2.0 LAN**, **138.42.94.212 WA\_Link**, **10.253.254.8 WA\_Link**, and **nvmqg-vc.ca.com IP Device**.



# QoS Metrics for ESX


Navigation

Explorer | Locater | Users

Name	21	12	26
My Spectrum			
Favorites			
Global Collections			
Global Collection Hierarchy			
Active Directory and Exchange Server Manager			
Cluster Manager			
Configuration Manager (3)	7	6	
eHealth Manager			
IP Routing Manager			
MPLS Transport Manager			
Policy Manager			
Service Performance Manager (2)			
VPLS Manager			
VPN Manager			
bezna01-w2k8vm1 (0x100000)	14	3	26
Chassis Manager (6)	1	1	
LostFound (6)			
Nimsoft Manager (2)	10		25
Servers (4)			
Virtualization (1)	10		25
VMware (4)	10		25
10.131.0.203 (56)	1		14
10.134.15.176 (1)			
nvmqa-vc.ca.com (1)			
ITC NVM (1)			
ITC Cluster (5)			
chumu01-esx1.ca.com			
chumu01-esx2.ca.com			
chumu01-esx3.ca.com			
chumu01-esx4.ca.com			
Resources (38)			
brzlm1p.ca.com			
chasr05-w2k3-v2.ca.com			
chasr05-w2k3-v3.ca.com			
chasr05-w2k3-v4			
dinme03-vm11			
gupma05-npc.ca.com			
gupma05-nv.ca.com			
hydin1			

Contents: chumu01-esx1.ca.com of type VMware ESX Host

Alarms | Topology | List | Events | Information



chumu01-esx1.ca.com  
VMware ESX Host

General Information

CA Spectrum Modeling Information

Asset Information

Thresholds And Watches

Global Collections Memberships

QoS CPU/Disk/Memory Metric Information

- QoS CPU Usage Metrics
- QoS CPU Multi Usage Metrics
- QoS Memory Metrics
- QoS Disk Metrics

QoS VMware Metric Information

- Is In Maintenance Mode: False
- VM Count: 23
- VM Count Active: 17
- Memory Size (MB): 24570.18
- Host Power State: Powered On
- Host Overall CPU Usage (MHz): 1825.00

Spectrum

You are logged in as bzlm1p on bezna01-w2k8vm1. [Change Password](#)

24%

# Alarms

Navigation

Explorer Locater Users

Name	24	72	147
<b>My Spectrum</b>			
★ Favorites			
Global Collections			
Global Collection Hierarchy			
Active Directory and Exchange Serve...			
Cluster Manager			
<b>Configuration Manager (3)</b>	9	7	
eHealth Manager			
IP Routing Manager			
MPLS Transport Manager			
Policy Manager			
<b>Service Performance Manager (2)</b>			
VPLS Manager			
VPN Manager			
<b>bezna01-w2k8vm1 (0x100000)</b>	1	9	12
Chassis Manager (6)	1	2	4
LostFound (42)	1	9	12
Nimsoft Manager (1)		7	
Servers (2)		7	
Other (8)			
Windows (6)		7	
mcast1.ca.com		7	
mcast2.ca.com			
mcast4.ca.com			
mcast6.ca.com			
mcast7.ca.com			
mcastsrc5.ca.com			
<b>Service Manager (3)</b>			
TopOrg			
<b>Universe (4)</b>			
World			
Correlation Manager			
Enterprise VPN Manager			
Multicast Manager			
QoS Manager			
Remote Operations Manager			
Secure Domain Manager			
Telco EMS Manager			

Contents: mcast1.ca.com of type IP Device

Alarms Topology List Events Information

Show

Filtered By: Severity

Severity	Date/Time	Name	Network Address	Secure Domain	Type	Alarm Title	Landscape	Occurrences
Major	Sep 23, 2014 2:15:58 PM IST	mcast1.ca.com	138.42.94.70	Directly Managed	IP Device	Average (1 samples) Idle cpu is now 99.98%, which is above the error threshold (3%)	bezna01-w2k8vm1 (0x1000...	8
Major	Sep 23, 2014 2:16:08 PM IST	mcast1.ca.com	138.42.94.70	Directly Managed	IP Device	Average (1 samples) memory usage is now 99%, which is above the error threshold (3%)	bezna01-w2k8vm1 (0x1000...	7
Major	Sep 23, 2014 2:16:10 PM IST	mcast1.ca.com	138.42.94.70	Directly Managed	IP Device	Average (1 samples) swap memory usage is now 100%, which is above the error threshold (3%)	bezna01-w2k8vm1 (0x1000...	7
Major	Sep 23, 2014 2:16:08 PM IST	mcast1.ca.com	138.42.94.70	Directly Managed	IP Device	Average (1 samples) memory usage is now 99%, which is above the error threshold (3%)	bezna01-w2k8vm1 (0x1000...	7
Major	Sep 23, 2014 2:16:09 PM IST	mcast1.ca.com	138.42.94.70	Directly Managed	IP Device	Average (1 samples) physical memory usage is now 73%, which is above the error threshold (3%)	bezna01-w2k8vm1 (0x1000...	7
Major	Sep 23, 2014 2:16:19 PM IST	mcast1.ca.com	138.42.94.70	Directly Managed	IP Device	Average (value_number samples) total cpu is now valueunit, which is above the error threshold (valu...	bezna01-w2k8vm1 (0x1000...	1
Major	Sep 23, 2014 2:16:19 PM IST	mcast1.ca.com	138.42.94.70	Directly Managed	IP Device	Network connection error; \pylsa01-w2k8\Albedo Access is denied.	bezna01-w2k8vm1 (0x1000...	1

Component Detail: mcast1.ca.com of type IP Device

Alarm Details Information Impact Host Configuration Root Cause Interfaces Performance Alarm History Neighbors Events mcast1.ca.com of type IP Device

Average (1 samples) Idle cpu is now 99.98%, which is above the error threshold (3%)

Sep 23, 2014 2:15:58 PM IST

Tue 23 Sep, 2014 - 04:45:58 - NIMSOFT SNMP GATEWAY

Major CPU Alarm generated with the following details:

Average (1 samples) Idle cpu is now 99.98%, which is above the error threshold (3%)

Source: mcast1

IP: 138.42.94.70

Level: Major

Suppression Key: cpu/custom/TestCPUProfile/Idle

Subsystem: NMS: Alarm Host: CPU



# Threshold Violation Alarm on a VM

Resources (144)

2 (4)

CM\_Build\_Machines (21)

IM\_Development (7)

ITC\_QA\_Pool (26)

imlinm1p.ca.com

imlinm1s.ca.com

inwinm1p

inwinm1s

inwinoc1.ca.com

itc-chasr05-vm1.ca.com

itc-sahra02-vm2.ca.com

itclinboxi2.ca.com

itclindev-vm2.ca.com

itclinoc3.ca.com

itclinp1p.ca.com

itclinp1s.ca.com

itclins1p.ca.com

itclins1s.ca.com

itcwinboxi1.ca.com

itcwinboxi2.ca.com

itcwinehealth.ca.com

itcwinehealth3.ca.com

itcwinehealthta.ca.com

itcwinm1p.ca.com

itcwinm1s.ca.com

itcwinoc1.ca.com

itcwinoc2.ca.com

itcwins1p.ca.com

itcwins1s.ca.com

itcwinsdc2.ca.com

Longevity2

NFA

Spectrum (35)

Spectrum Release Team (4)

Support\_PM\_Pool (12)

Alarms | Topology | List | Events | Information


Severity

Filtered By: Severity

Severity	Date/Time	Name	Network Address	Secure Domain	Type	Alarm Title	Land...
Major	Oct 1, 2014 3:18:18 AM EDT	imlinm1p.ca.com	138.42.249.170	Directly Managed	VMware Virt...	Average (1 samples) disk ...	beznat

Component Detail: imlinm1p.ca.com of type VMware Virtual Machine

Alarm Details | Information | Impact | Host Configuration | Root Cause | Interfaces | Performance | Alarm History | Neighbors | Events | Path View



imlinm1p.ca.com  
VMware Virtual ...

Average (1 samples) disk free on /t1 is now 0MB, which is below the error threshold (10MB) out of total size 130.5 GB

Oct 1, 2014 3:18:18 AM EDT

Wed 01 Oct, 2014 - 03:18:18 - NIMSOFTE SNMP GATEWAY

Major Disk Alarm generated with the following details:

-----

Average (1 samples) disk free on /t1 is now 0MB, which is below the error threshold (10MB) out of total size 130.5 GB

Source: imlinm1p

IP: 138.42.249.170

Level: Major

Suppression Key: disk//t1

Subsystem: NMS.Alarm.Host.Disk

Probe ID: cdm

Origin: albedohub

Arrival Time (s): 1412147889

NIM-ID: PC35934071-70255

Domain: albedodom

=====

Spectrum Event ID: 0x06330032 [more](#)

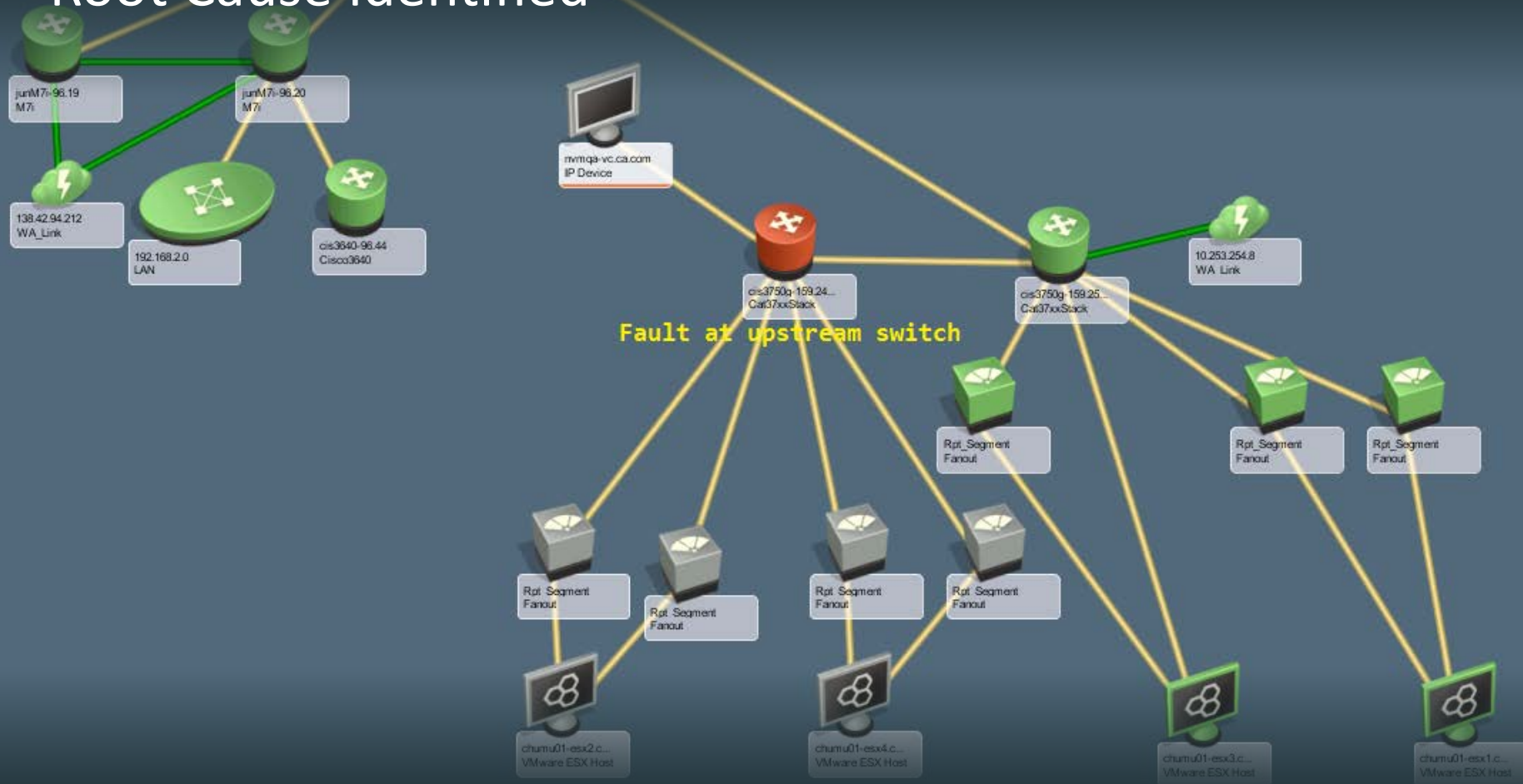
Severity Major

Impact 0

Symptoms A trap from the Nimsoft Integration was received and has caused this alarm.

Probable Cause The Nimsoft Probe running on behalf of a monitored disk resource has detected disk space b

# Root Cause Identified



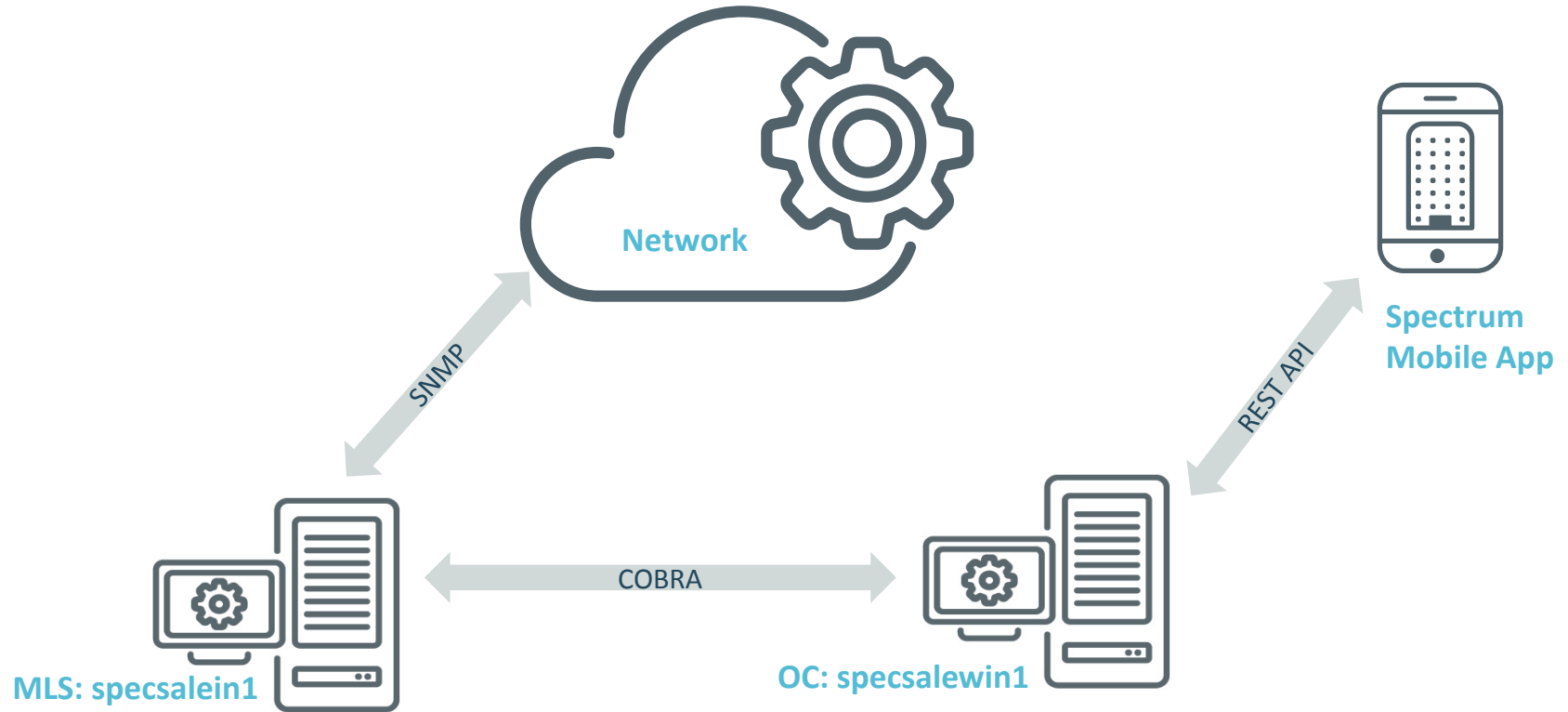
# CA Spectrum Mobile Interface

# CA Spectrum Mobile

- Spectrum Mobile App is an easy way to view and perform some specific actions on Spectrum Alarms on your mobile device
- Uses sencha framework and supports both Android as well as iOS
- Alarms can be assigned, acknowledge and cleared
- Supported Devices
  - This App supports the following platforms
    - Android (4.4 – Kitkat)
    - iOS (7.1)

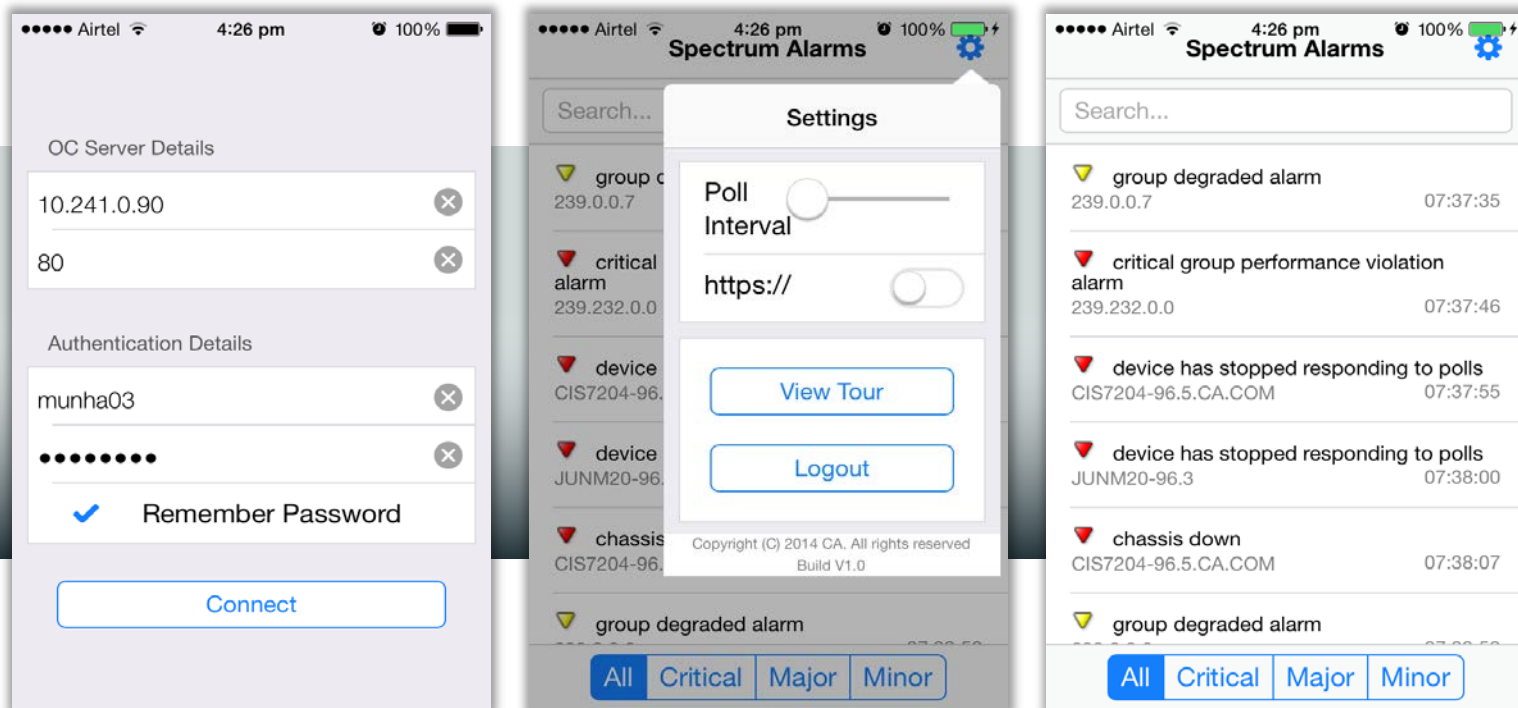


# CA Spectrum Mobile App Overview

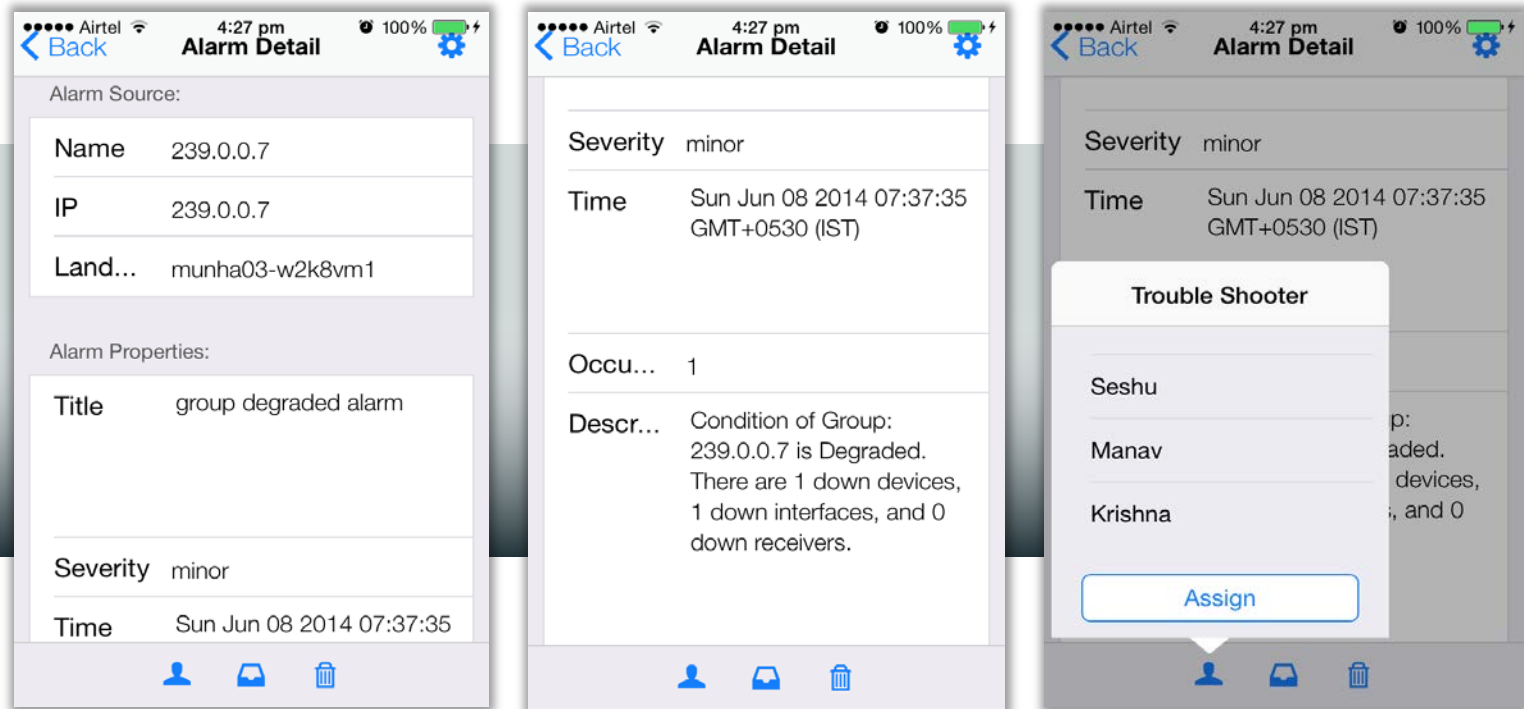




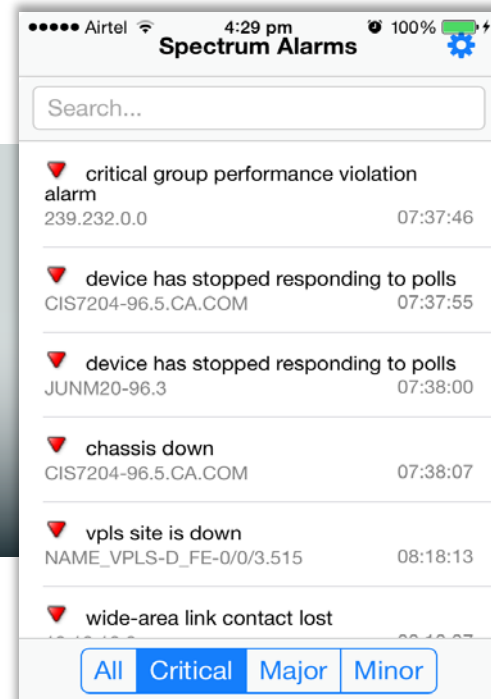
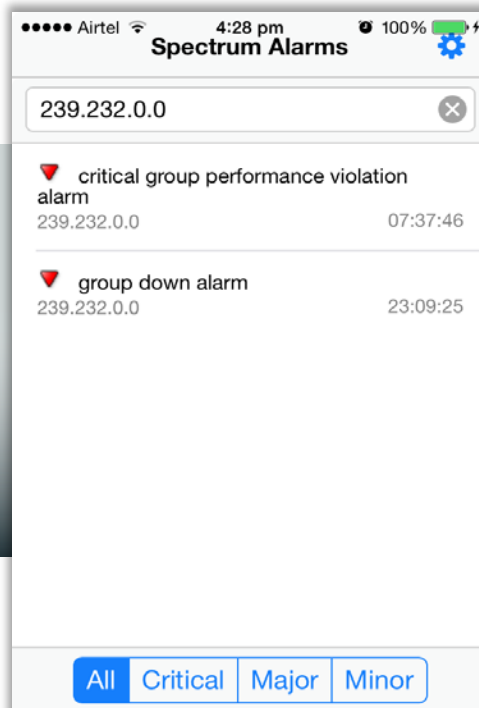
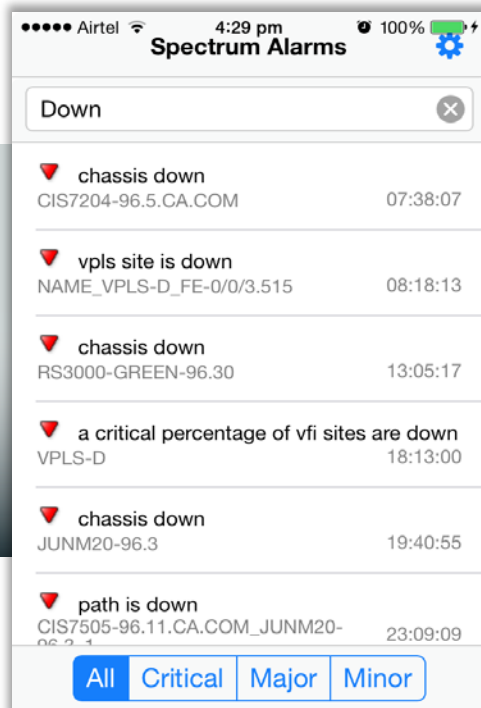
# CA Spectrum Views on Mobile



# CA Spectrum Views on Mobile



# CA Spectrum Views on Mobile



# High Impacting Outages

# High Impacting Outages View

- Use the existing data to derive more value
- List the outages and their impact to the environment
- View key outage information:
  - Outage start time
  - Outage duration
  - Root cause device
  - Count of impacted devices
- Could customize to associate costs



# High Impacting Outages View

## Top Impacting Outages

Request processed successfully



Records per page

25

Search:

Outage Start Time	Duration(hh:mm:ss)	Device	Location	Peak Impact Count	Impact Weight
2014-09-27 21:59:26	336:30:32	cat4503-cyan-96.33	"QA Lab, Portsmouth NH"	10	201906
2014-10-11 00:31:44	69:09:08	cisco2621-96.8.8.ca.com	Hardware Lab - Portsmouth, NH	11	45641
2014-10-12 01:25:31	44:12:19	cis2524-96.55.ca.com	"Hardware Lab, Portsmouth, NH"	10	26524
2014-10-10 05:58:14	43:26:52	rs3000-PurpleCE1-96.39	Portsmouth, NH	10	26069
2014-10-07 17:08:08	79:12:14	jun2300-96.17	QA Lab, Portsmouth NH-1	4	19009
2014-10-11 00:33:13	69:03:59	jun2300-96.17	QA Lab, Portsmouth NH-1	4	16576
2014-10-07 17:10:52	79:08:10	cisco2621-96.8.8.ca.com	Hardware Lab - Portsmouth, NH	3	14245
2014-10-07 17:11:04	79:07:58	cis2600-96.15.ca.com	"QA Lab, Portsmouth NH"	3	14244
2014-10-11 00:31:31	21:59:00	cis2600-96.15.ca.com	"QA Lab, Portsmouth NH"	9	11871
2014-10-07 17:10:01	60:48:14	cis2524-96.55.ca.com	"Hardware Lab, Portsmouth, NH"	2	7297
2014-10-10 04:52:03	19:29:15	cis2524-blue-96.28.ca.com	"QA Lab, Portsmouth NH"	6	7016
2014-10-13 21:43:53	12:24:50	cisco2621-96.8.8.ca.com	Hardware Lab - Portsmouth, NH	9	6704
2014-10-13 21:47:17	12:20:32	cis2524-96.55.ca.com	"Hardware Lab, Portsmouth, NH"	7	5184

# Device Certifications

# CA Spectrum r9.4.1 key certification updates

- Cisco
- Juniper
- Nortel
- Alcatel
- Avaya
- Brocade and more.
- The goal of the product team is to deliver valuable certification updates every release.

**Search**  
Certification Database

**Content Strategy**  
Plan of Action for  
Certifications



[ca.com/Spectrum](https://ca.com/Spectrum)