

# EM DevXchange 11 & 12<sup>th</sup> May 2016

## CA Spectrum – UIM Integration

Nagesh Jaiswal  
Principal Product Manager

Kiran Diwakar  
Director, Product Management



## Overview

- Use UIM as source of information for servers and VMW, like SysEdge/VAIM
- eHealth Integration “like” capability, through GC
- Bi-directional sync of alarms
- Bi-Directional Clear / Update of Alarms
- View symptomatic Spectrum alarms in the context for the root-cause alarm in UIM

# Integrating CA Unified Infrastructure Management Monitor and CA Spectrum

## Use Case



Ability to identify root cause (using CA Spectrum RCA/FI) and suppress symptomatic alarms when managing servers and virtual environments

## Targeted Users



Currently using or planning to deploy CA Unified Infrastructure Management for Infrastructure Management

CA Spectrum customers who like to leverage CA Unified Infrastructure Management Systems Management capabilities with RCA

New CA Spectrum Customers

# One Click Navigation–Prior to Enabling Integration

The screenshot displays the CA Unified Infrastructure Management (UIM) console interface. On the left is a navigation pane with a tree structure of management components. The main area on the right shows a table of alerts or events.

**Navigation Pane (Left):**

- Global Collections
- Global Collection Hierarchy
- Active Directory and Exchange Serve...
- Cluster Manager
- Configuration Manager (3)**
  - eHealth Manager
  - IP Routing Manager
  - MPLS Transport Manager
  - Policy Manager
- Service Performance Manager (2)**
  - VPLS Manager
  - VPN Manager
- bezna01-w2k8vm1 (0x100000)**
  - bonve01-rh64vm1 (0x600000)**
    - Chassis Manager (6)
    - LostFound (42)
    - Service Manager (3)
      - TopOrg
    - Universe (1)
      - World
        - Correlation Manager
        - Enterprise VPN Manager
        - Multicast Manager
        - Nimsoft Manager
        - QoS Manager
        - Remote Operations Manager
        - Secure Domain Manager
        - Telco EMS Manager
        - Virtual Host Manager
  - bonve01-sol11z1 (0x800000)**

**Alerts Table (Right):**

Severity	Date/Time	Name	Network Address
Critical	Sep 23, 2014 12:17:56 PM IST	sinma07inx-vm1	138.42.107.7
Critical	Sep 23, 2014 12:17:24 PM IST	yanya044-lisa1	138.42.110.2
Critical	Sep 23, 2014 12:17:37 PM IST	qinzu01-pladev1	138.42.111.7
Critical	Sep 23, 2014 12:16:24 PM IST	vmsobar01w2k8	138.42.110.2
Critical	Sep 23, 2014 12:18:36 PM IST	USILDIA2	138.42.111.7
Critical	Sep 23, 2014 2:03:16 PM IST	kucya01-68276...	138.42.111.8
Critical	Sep 23, 2014 6:53:30 AM IST	SRM_Application...	
Critical	Sep 23, 2014 2:03:50 PM IST	albedo	
Critical	Sep 23, 2014 12:18:37 PM IST	vmhoatr02dev	138.42.110.2
Critical	Sep 23, 2014 12:17:55 PM IST	gufve01-dc1	138.42.107.7
Major	Sep 23, 2014 6:37:23 AM IST	name	138.42.94.90
Major	Sep 23, 2014 2:03:43 PM IST	albedo	
Major	Sep 23, 2014 2:06:52 PM IST	munha03-i11876...	10.131.61.62
Major	Sep 23, 2014 7:08:40 AM IST	name	138.42.94.90
Major	Sep 23, 2014 2:03:43 PM IST	albedo	
Major	Sep 23, 2014 2:04:06 PM IST	138.42.94.70	138.42.94.70
Major	Sep 23, 2014 2:03:38 PM IST	munha03-i11876...	10.131.60.17
Major	Sep 23, 2014 2:06:52 PM IST	munha03-i11876...	10.131.61.62
Major	Sep 23, 2014 2:06:52 PM IST	munha03-i11876...	10.131.61.62
Major	Sep 23, 2014 2:06:52 PM IST	munha03-i11876...	10.131.61.62
Major	Sep 23, 2014 2:06:52 PM IST	munha03-i11876...	10.131.61.62
Major	Sep 23, 2014 2:06:52 PM IST	munha03-i11876...	10.131.61.62
Major	Sep 23, 2014 2:04:08 PM IST	138.42.94.70	138.42.94.70
Major	Sep 23, 2014 2:06:52 PM IST	munha03-i11876...	10.131.61.62
Major	Sep 23, 2014 2:06:52 PM IST	munha03-i11876...	10.131.61.62
Major	Sep 23, 2014 2:06:52 PM IST	munha03-i11876...	10.131.61.62

**Component Detail (Bottom):** sinma07inx-vm1 of type VMware Virtual Machine

Alarm Details | Information | Impact | Host Configuration | Root Cause | Int...

DEVICE HAS STOPPED RESPONDING TO POLLS  
Sep 23, 2014 12:17:56 PM IST  
Device sinma07inx-vm1 of type Pingable has stopp...

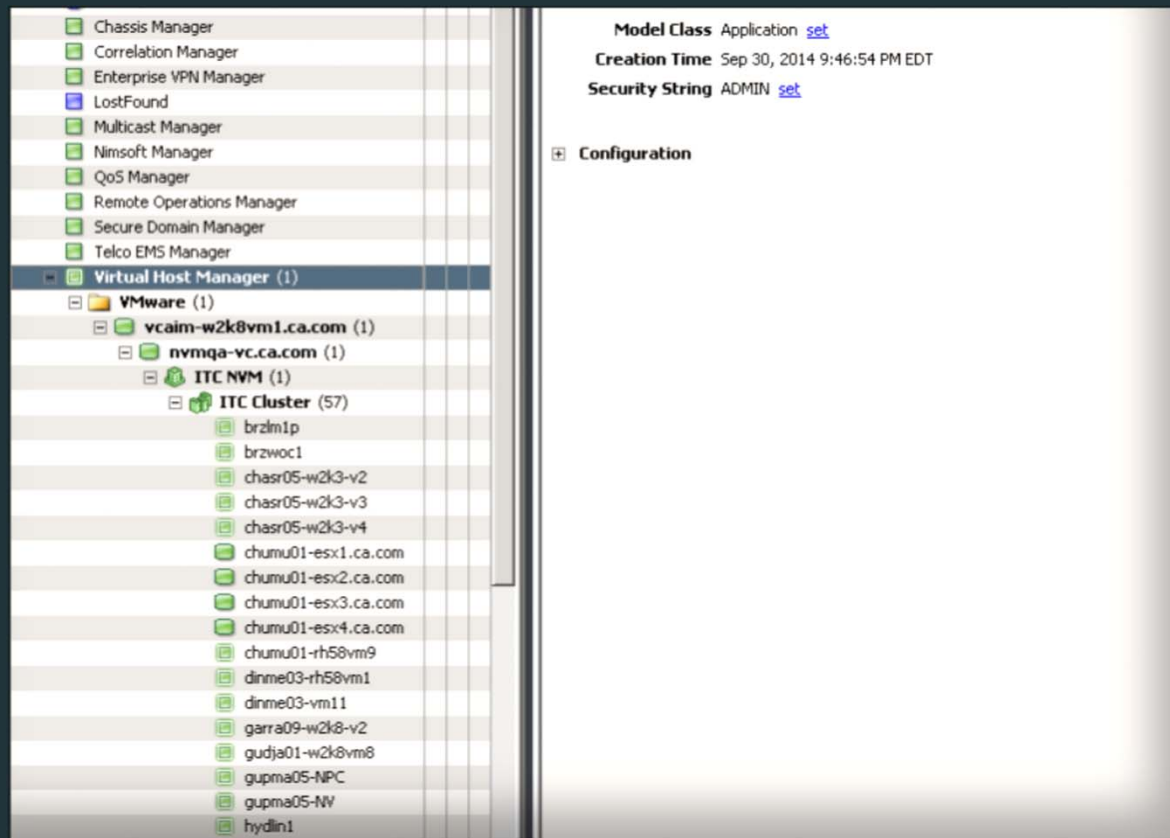
sinma07inx-vm1  
VMware Virtual ...

OC Navigation

- ✓ VHM
- ✓ CA Unified Infrastructure Management Node

New CA Unified Infrastructure Management Node created to house all CIs

# VHM Before CA Unified Infrastructure Management Sync



# Configure CA Unified Infrastructure Management Integration

## Step 1

Enable/disable integration.

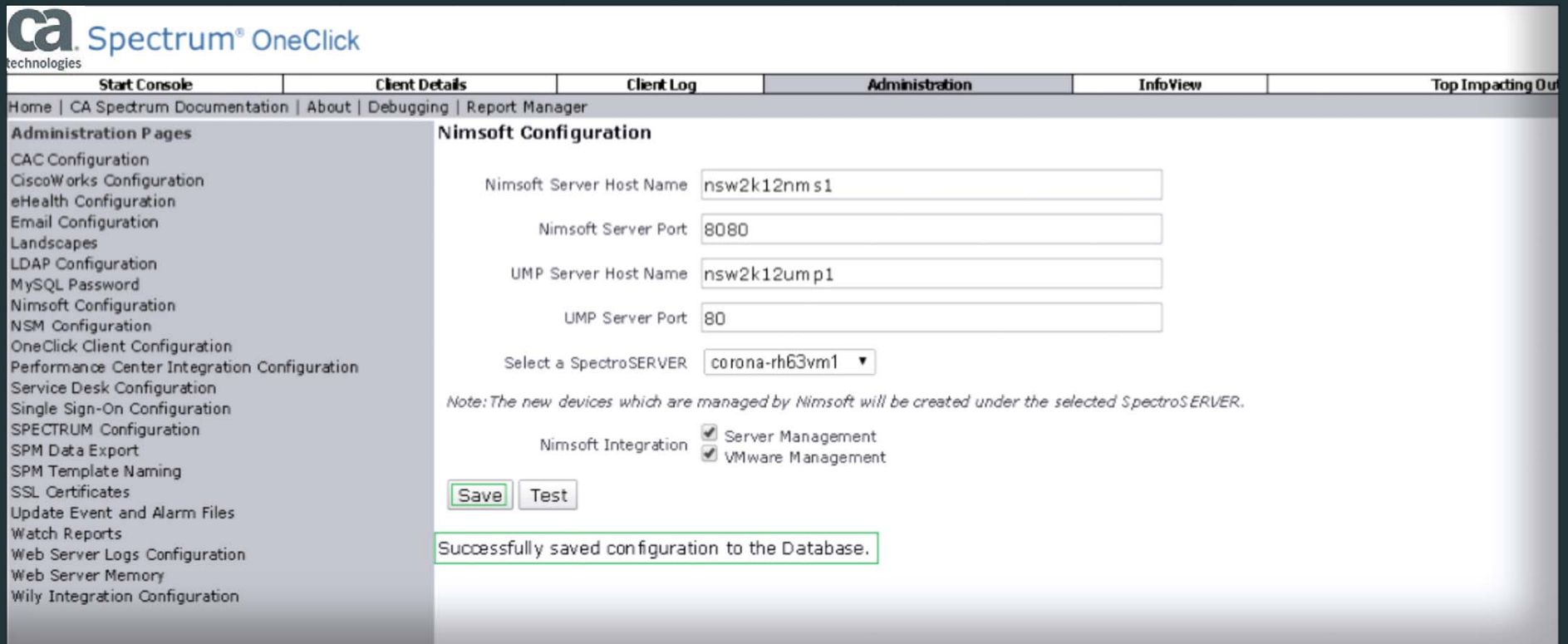
## Step 2

Test the connection to CA Unified Infrastructure Management server.

## Step 3

Enable virtualization to disable VHM Manager.

# Enable CA Unified Infrastructure Management Integration



**ca** Spectrum® OneClick  
technologies

Start Console | Client Details | Client Log | Administration | InfoView | Top Impacting Out

Home | CA Spectrum Documentation | About | Debugging | Report Manager

**Administration Pages**

- CAC Configuration
- CiscoWorks Configuration
- eHealth Configuration
- Email Configuration
- Landscapes
- LDAP Configuration
- MySQL Password
- Nimsoft Configuration
- NSM Configuration
- OneClick Client Configuration
- Performance Center Integration Configuration
- Service Desk Configuration
- Single Sign-On Configuration
- SPECTRUM Configuration
- SPM Data Export
- SPM Template Naming
- SSL Certificates
- Update Event and Alarm Files
- Watch Reports
- Web Server Logs Configuration
- Web Server Memory
- Wily Integration Configuration

**Nimsoft Configuration**

Nimsoft Server Host Name

Nimsoft Server Port

UMP Server Host Name

UMP Server Port

Select a SpectroSERVER

*Note: The new devices which are managed by Nimsoft will be created under the selected SpectroSERVER.*

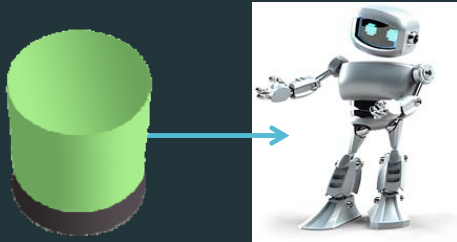
Nimsoft Integration ☒ Server Management ☒ VMware Management

Successfully saved configuration to the Database.

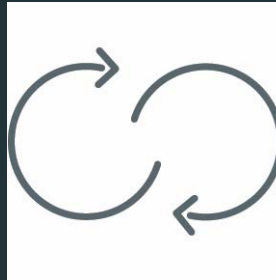
CA Unified Infrastructure Management  
discovered CIs (Servers, VM elements)  
are synchronized with CA Spectrum,  
and corresponding models are created



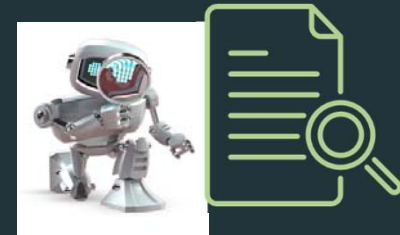
# What Happens After Enabling Integration?



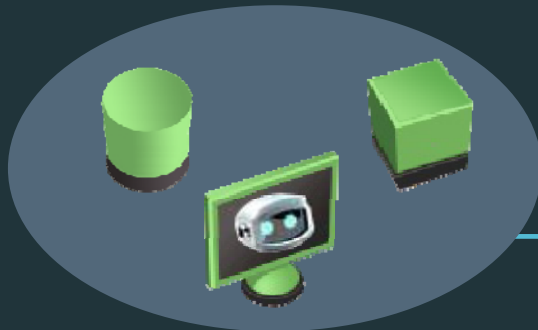
CA Spectrum contacts CA Unified Infrastructure Management (UIM) server.



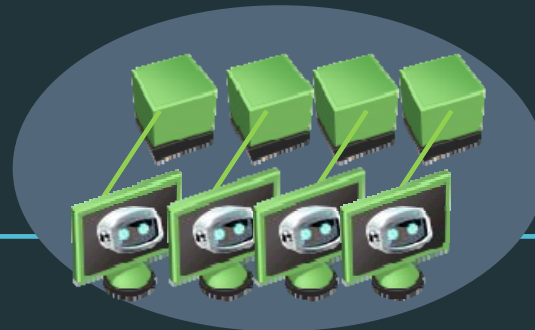
CA Spectrum retrieves server CI's discovered by UIM.



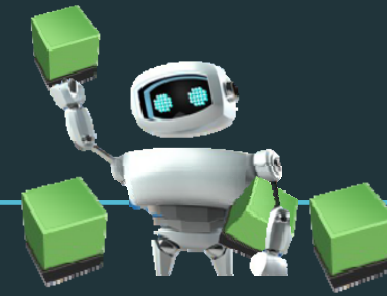
CA Spectrum creates augments and models for corresponding CIs.



CA Spectrum establishes connections in CA Spectrum topology.



CA Spectrum starts monitoring the models.



CA Spectrum rediscovers L2 connectivity for new models.

# CA Unified Infrastructure Management Node is Populated.

- Expand the CA Unified Infrastructure Management Node
- Organized by OS
- Each host CI is a model in CA Spectrum

The screenshot displays the CA Unified Infrastructure Management console. On the left, a tree view shows the hierarchy of hosts, organized by operating system (OS). The tree includes:

- bonve01-rh64vm1 (0x600000)** (1 host, 20 models)
- bonve01-sol11z1 (0x800000)** (10 hosts, 50 models, 113 models)
- Chassis Manager (5)** (2 models)
- LostFound (3)**
- Nimsoft Manager (1)** (34 models)
- Servers (4)** (34 models)
- Linux (4)**
  - ace-rserver9.ca.com
  - rh58-lacp-1.ca.com
  - spec64-rh6.ca.com
  - specscalein1.ca.com
- Other (7)**
  - nvmautomation.ca.com
  - nvmpism.ca.com
  - planer.ca.com
  - spec64-w2k8.ca.com
  - specscalewin1.ca.com
  - stratos.ca.com
  - virtualesx.ca.com
- Solaris (10)**
  - albedo-sol10-ct3.ca.com
  - gerga02-sol10.ca.com...
  - gerga02-sol9.ca.com...
  - korto03-sun.ca.com...
  - palbi01-sol9.ca.com...
  - powerpuff.ca.com...
  - powma02-sol9.ca.com...
  - spec64-sol11.ca.com
  - specscale1.ca.com
  - sundogs-sol10z1.ca.com
- Windows (7)** (34 models, 22 models, 12 models)
  - munha03+118761.ca.C...
  - munha03+118762.ca.C...
  - munha03+119032.ca.C...
  - scsihyper-v.ca.com
  - uspmnetqos1.ca.com
  - uspmnetqos2.ca.com
  - uspmnetqos3.ca.com
- Service Manager (3)**

On the right, a table lists various alarms. The table has columns for Severity, Time, Host Name, IP Address, and Action. The table shows several critical alarms, including:

- Critical** Sep 23, 2014 12:18:36 PM IST **USTIDIA2** 138.42.111.103 Directly Managed
- Critical** Sep 23, 2014 6:53:30 AM IST **SRM\_Application...**
- Critical** Sep 23, 2014 2:03:50 PM IST **albedo**
- Critical** Sep 23, 2014 12:18:37 PM IST **vmha03+11876...** 138.42.110.235 Directly Managed
- Critical** Sep 23, 2014 12:17:55 PM IST **gurga02-sol9...** 138.42.107.197 Directly Managed
- Critical** Sep 23, 2014 2:09:01 PM IST **eh63w2k8-2-vm3** 138.42.107.99 Directly Managed
- Major** Sep 23, 2014 6:37:23 AM IST **name** 138.42.94.90 Directly Managed
- Major** Sep 23, 2014 2:03:43 PM IST **albedo** 138.42.94.90 Directly Managed
- Major** Sep 23, 2014 2:06:52 PM IST **munha03+11876...** 10.131.61.62 Directly Managed
- Major** Sep 23, 2014 7:08:40 AM IST **name** 138.42.94.90 Directly Managed
- Major** Sep 23, 2014 2:03:43 PM IST **albedo** 138.42.94.90 Directly Managed
- Major** Sep 23, 2014 2:04:06 PM IST **138.42.94.70** 138.42.94.70 Directly Managed
- Major** Sep 23, 2014 2:03:38 PM IST **munha03+11876...** 10.131.60.170 Directly Managed
- Major** Sep 23, 2014 2:06:52 PM IST **munha03+11876...** 10.131.61.62 Directly Managed
- Major** Sep 23, 2014 2:06:52 PM IST **munha03+11876...** 10.131.61.62 Directly Managed
- Major** Sep 23, 2014 2:06:52 PM IST **munha03+11876...** 10.131.61.62 Directly Managed
- Major** Sep 23, 2014 2:06:52 PM IST **munha03+11876...** 10.131.61.62 Directly Managed
- Major** Sep 23, 2014 2:06:52 PM IST **munha03+11876...** 10.131.61.62 Directly Managed
- Major** Sep 23, 2014 2:04:08 PM IST **138.42.94.70** 138.42.94.70 Directly Managed
- Major** Sep 23, 2014 2:06:52 PM IST **munha03+11876...** 10.131.61.62 Directly Managed
- Major** Sep 23, 2014 2:06:52 PM IST **munha03+11876...** 10.131.61.62 Directly Managed
- Major** Sep 23, 2014 5:47:37 AM IST **name** 138.42.94.90 Directly Managed

Below the table, a detailed view of a specific alarm is shown. The alarm is titled "Component Detail: sinma07inx-vm1 of type VMware Virtual Machine". The alarm is categorized as "Critical" and "Impact 1". The alarm message states: "DEVICE HAS STOPPED RESPONDING TO POLLS" and "Sep 23, 2014 12:17:56 PM IST". The alarm is acknowledged and clearable. The alarm is associated with the host "sinma07inx-vm1" and the model "VMware Virtual Machine".

# VMWare Hierarchy under CA Unified Infrastructure Management Manager

**Navigation**

Explorer | Locator | Users

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)			
br2lm1p.ca.com			
chasr05-w2k3-v2.ca.com			
chasr05-w2k3-v3.ca.com			
chasr05-w2k3-v4			
dirme03-vm11			
gupma05-npc.ca.com			
gupma05-nv.ca.com			
hydin1			
hydw1n1			
i18n-j913			
itsimrepo.ca.com			
karja06-w2k3-gtp			
karja06-w2k8vm2			
mupha03-w2k8ps1.ca.com			

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

Alarms | Topology | List | Events | Information

**General Information**

**CA Spectrum Modeling Information**

**Asset Information**

**Reconfiguration**

Discover Connections

**Multicast Information**

**Thresholds And Watches**

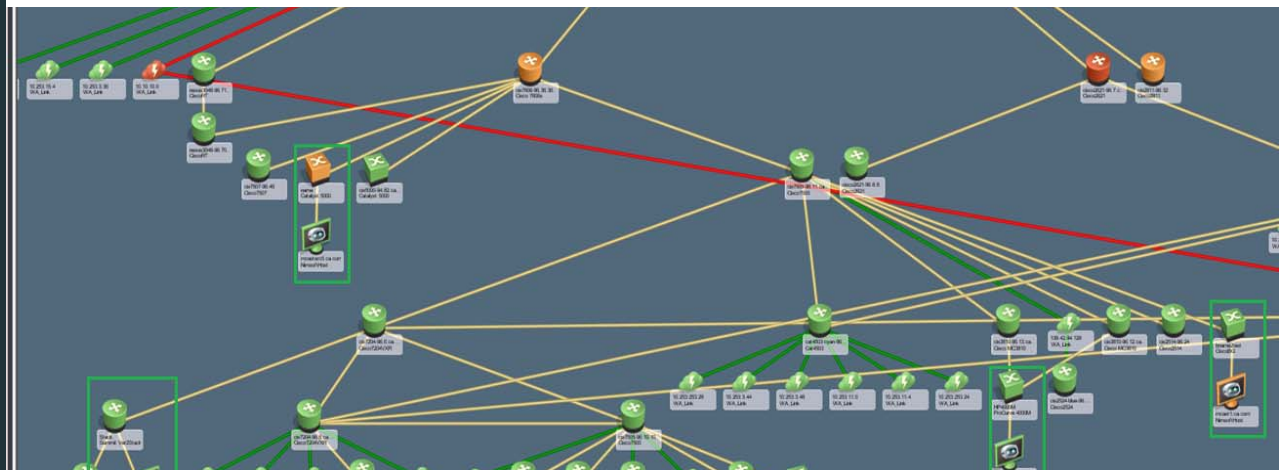
**Global Collections Memberships**

**QoS CPU/Disk/Memory Metric Information**

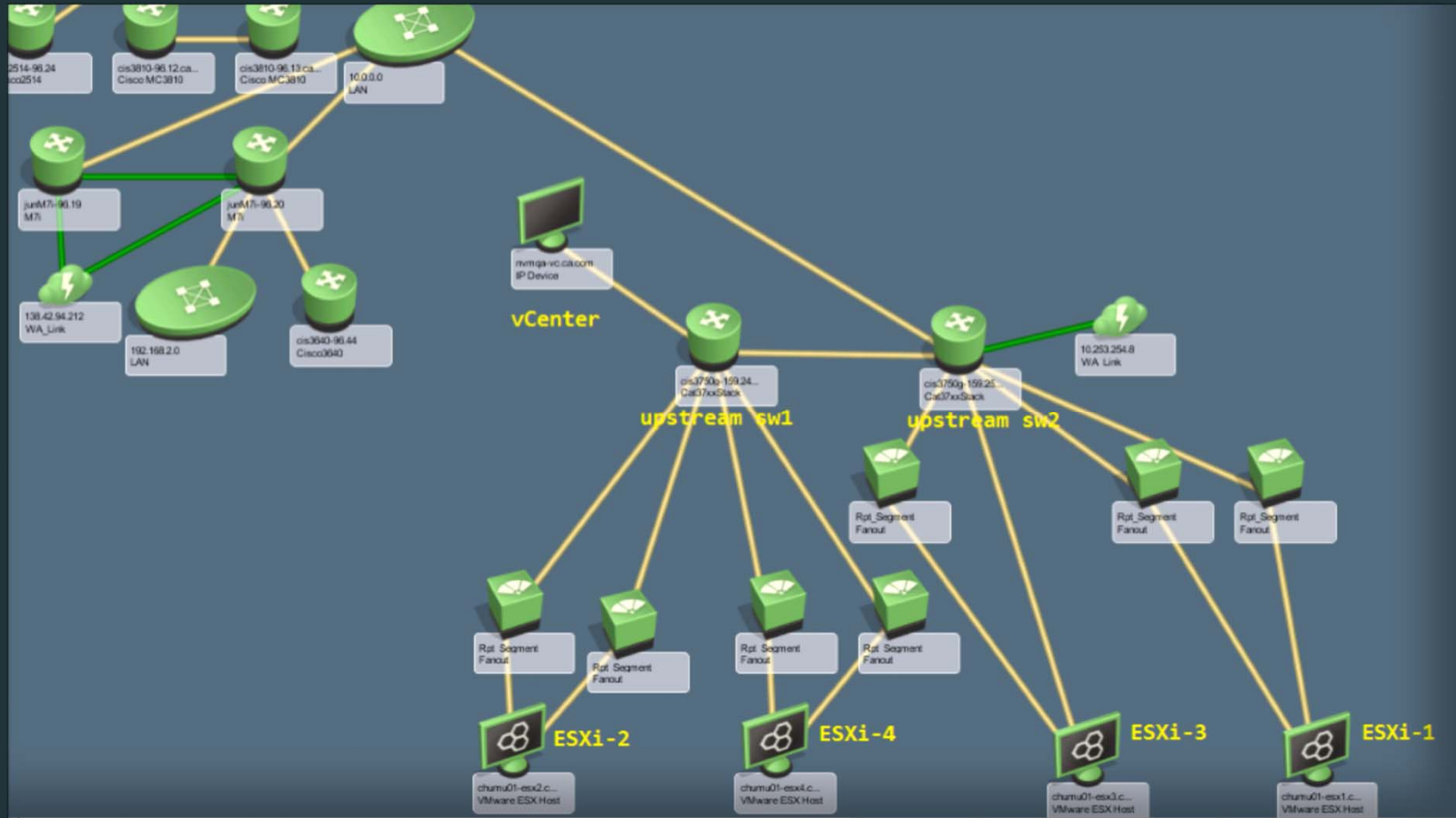
- QoS CPU Usage Metrics
- QoS CPU Multi Usage Metrics
- QoS Memory Metrics
- QoS Disk Metrics

## L2 Connections Rediscovered

- CA Spectrum automatically rediscovers the L2 connections of new models.
- CA Unified Infrastructure Management discovered CIs are displayed with unique icon.



# L2 Connectivity for Virtual Environment



# Moving Datacenters Across Landscapes

**Navigation**

Explorer | Locator | Users

Name			
My Spectrum			14
Favorites			
Global Collections			
Global Collection Hierarchy			
Active Directory and Excha...			
Cluster Manager			
Configuration Manager ...			
eHealth Manager			
IP Routing Manager			
MPLS Transport Manager			
Policy Manager			
Service Performance M...			
VPLS Manager			
VPN Manager			
vatr01-w2k8vm1 (0x4...			14
Service Manager (3)			
TopOrg			
Universe (47)			14
World			
Chassis Manager			
Correlation Manager			
Enterprise VPN Manager			
LostFound			
Multicast Manager			
Nimsoft Manager (1)			14
Virtualization (1)			14
VMware (3)			14
10.131.0.203			14
10.131.159.5			
ITC NVM ...			
yadr01-vc...			
Nimsoft			
QoS Manager			
Remote Operations Man...			
Secure Domain Manager			

**Contents: Nimsoft Manager of type NimsoftManager**

Alarms | Topology | List | Events | Information

**General Information**

Model Class Application

Creation Time Sep 29, 2014 5:37:20 AM EDT

Security String ADMIN

**Configuration**

**VMware Configuration**

Select a Datacenter to move it to different landscape

**VMware Datacenter Modeling**

vCenter Server	Datacenter	Modeled Lands
10.131.0.203	ITCM-CONTENT	vatr01-w2k8vm1
10.131.0.203	Arcot	vatr01-w2k8vm1
10.131.0.203	NBI - COI-Bag	vatr01-w2k8vm1
10.131.0.203	Adigoppula Mah...	vatr01-w2k8vm1
10.131.0.203	SECBU(Sakbeer)	vatr01-w2k8vm1

**Select Landscape - CA Spectrum OneClick**

Warning: Moving a Datacenter from one landscape to another will result in deleting the Datacent...

vatr01-w2k8vm1

OK Cancel



# Sync With CA Unified Infrastructure Management

The screenshot displays the CA Unified Infrastructure Management (UIM) interface. On the left is the 'Navigation' pane with tabs for 'Explorer', 'Locator', and 'Users'. The 'Explorer' tab is active, showing a tree structure of managed resources. The right pane shows the 'Contents' for a 'Nimsoft Manager of type NimsoftManager', with tabs for 'Alarms', 'Topology', 'List', 'Events', and 'Information'. The 'Information' tab is selected, displaying details about the manager's configuration.

**Navigation Pane:**

- My Spectrum
  - Favorites
  - Global Collections
  - Global Collection Hierarchy
  - Active Directory and Exchange Server Manager
  - Cluster Manager
- Configuration Manager (3)
  - eHealth Manager
  - IP Routing Manager
  - MPLS Transport Manager
  - Policy Manager
- Service Performance Manager (2)
  - VPLS Manager
  - VPN Manager
- akupr01-w2k8vm2 (0x200000)
  - Nimsoft Manager (2)
  - Service Manager (3)
    - TopOrg
- Universe (116)
  - World
    - Chassis Manager
    - Correlation Manager
    - Enterprise VPN Manager
    - LostFound
    - Multicast Manager
    - QoS Manager
    - Remote Operations Manager
    - Secure Domain Manager
    - Telco EMS Manager

**Contents Pane: Nimsoft Manager of type NimsoftManager**

Alarms | Topology | List | Events | Information

**General Information**

- Model Class: Application
- Creation Time: Sep 17, 2014 5:19:21 AM EDT
- Security String: ADMIN [set](#)

**Configuration**

- Nimsoft Server Configuration
- Nimsoft Host Sync Configuration
  - Incremental Sync Time Interval (Minutes): 1 [set](#)
  - Change Full Sync Schedule: [Schedule...](#)
  - Last Full Sync Time Stamp: Wed Oct 01 03:11:53 EDT 2014
  - Next Full Sync Time Stamp: Wed Oct 08 00:01:00 EDT 2014
  - Sync Status: Running
- Nimsoft Virtualization Sync Configuration
  - VMWare Sync Time Interval (Minutes): 1 [set](#)

# QoS Metrics for VM/Servers

- OC views reflect the Dynamic metric data from CA Unified Infrastructure Management
- Select host and view the CPU, Memory and Disk metrics

The screenshot displays the CA Unified Infrastructure Management (UIM) interface. On the left, a tree view shows the hierarchy of components under 'bonve01-sol11z1 (0x800000)'. The 'Servers (4)' folder is expanded, showing a list of hosts including 'rh58-lacp-1.ca.com', which is selected. On the right, the 'Component Detail' page for 'rh58-lacp-1.ca.com of type NimsoftHost' is shown. The 'Performance' tab is active, displaying various QoS metrics.

**Component Detail: rh58-lacp-1.ca.com of type NimsoftHost**

Information | Host Configuration | Root Cause | Interfaces | Performance | Neighbors | Alarms | Cleared Alarms History | Events

**Asset Information**

**Thresholds And Watches**

**Reconfiguration**

**Global Collections Memberships**

**QoS CPU/Disk/Memory Metric Information**

- QoS CPU Usage Metrics**
  - CPU Usage for System (%) 0.25
  - CPU Usage for User (%) 0.25
  - CPU Usage for Wait (%) 0.00
- QoS CPU Multi Usage Metrics**
- QoS Memory Metrics**
  - Memory Usage (MB) 621.00
  - Physical Memory (MB) 621.00
  - Swap Memory (MB) 0.00
  - Memory Paging (KB/Sec) 0.00
  - Computing Uptime (Sec) 928702.00
- QoS Disk Metrics**
  - Disk Available**
  - Disk Usage**

Showing 1 of 1

Source	Target	Value (MB)
minim1p.ca.com	/t1	133659.00



# QoS Metrics for VM/Servers

The screenshot displays the CA Spectrum OneClick console interface. The left pane shows a navigation tree with various system components. The right pane displays the QoS metrics for a specific VMware Virtual Machine.

**Navigation Tree (Left Pane):**

- My Spectrum
  - Configuration Manager (3)
    - Health Manager
    - IP Routing Manager
    - MPLS Transport Manager
    - Policy Manager
  - Service Performance Manager (2)
    - VPLS Manager
    - VPRN Manager
  - bezn01-w2k8vm1 (0x100000)
    - Chassis Manager (6)
      - LostFound (6)
      - Nimsoft Manager (2)
      - Servers (4)
        - Virtualization (1)
          - VMware (4)
            - 10.131.0.203 (55)
            - 10.134.15.176 (1)
            - nvmqa-vc.ca.com (1)
              - ITC NVM (1)
                - ITC Cluster (5)
                  - chum01-esx1.ca.com
                  - chum01-esx2.ca.com
                  - chum01-esx3.ca.com
                  - chum01-esx4.ca.com
                - Resources (38)
                  - brzm1p.ca.com
                  - chas05-vx3-v2.ca.com
                  - chas05-vx3-v3.ca.com
                  - chas05-vx3-v4
                  - dmms03-vm11
                  - gupme05-rpc.ca.com
                  - gupme05-rv.ca.com
                  - hydin1

**Contents: brzm1p.ca.com of type VMware Virtual Machine**

**General Information**

  - CA Spectrum Modeling Information
  - Asset Information
  - Thresholds And Watches
  - Reconfiguration
  - 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
    - Tools Running Status: Running
    - Power State: Powered On
    - Heartbeat Status: Green
    - CPU Reservation (MHz): 0.00
    - Memory Reservation (MB): 0.00
    - Memory (MB): 4096.00
    - Memory Limit (MB): Unlimited
    - Overall CPU Usage (MHz): 162.33
    - Number of CPUs: 2
    - Guest Memory Usage (in % of Memory): 1.54
    - Guest State: Running

**Status Bar:** You are logged in as user on bonve01-rh94vm1. [Change Password](#)

# QoS Metrics for ESX

The screenshot displays the CA Spectrum interface with two main panels. The left panel shows a tree view of the network topology, and the right panel shows the details for a selected ESX host.

**Left Panel: Explorer | Locator | Users**

| Name   | 21 | 12 | 26 |
|--|----|----|----|
| My Spectrum                                  |    |    |    |
| Global Collections                           |    |    |    |
| Global Collection Hierarchy                  |    |    |    |
| Active Directory and Exchange Server Manager |    |    |    |
| Cluster Manager                              |    |    |    |
| Configuration Manager (3)                    | 7  | 6  |    |
| Health 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 (36)                               |    |    |    |
| brdm1p.ca.com                                |    |    |    |
| chasr05-w2k3-v2.ca.com                       |    |    |    |
| chasr05-w2k3-v3.ca.com                       |    |    |    |
| chasr05-w2k3-v4                              |    |    |    |
| dname03-vm11                                 |    |    |    |

**Right Panel: Alerts | Topology | List | Events | Information**

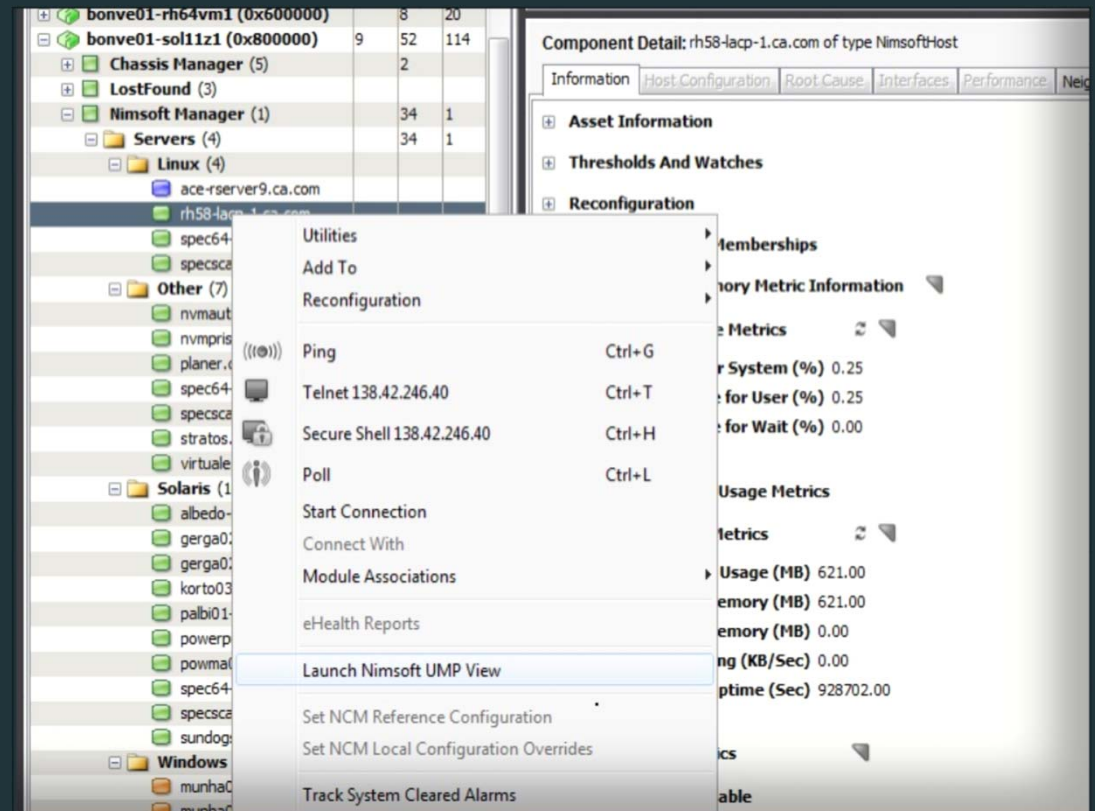
chumu01-esx1.ca.com  
VMware ESX Host

chumu01-esx1.c...  
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

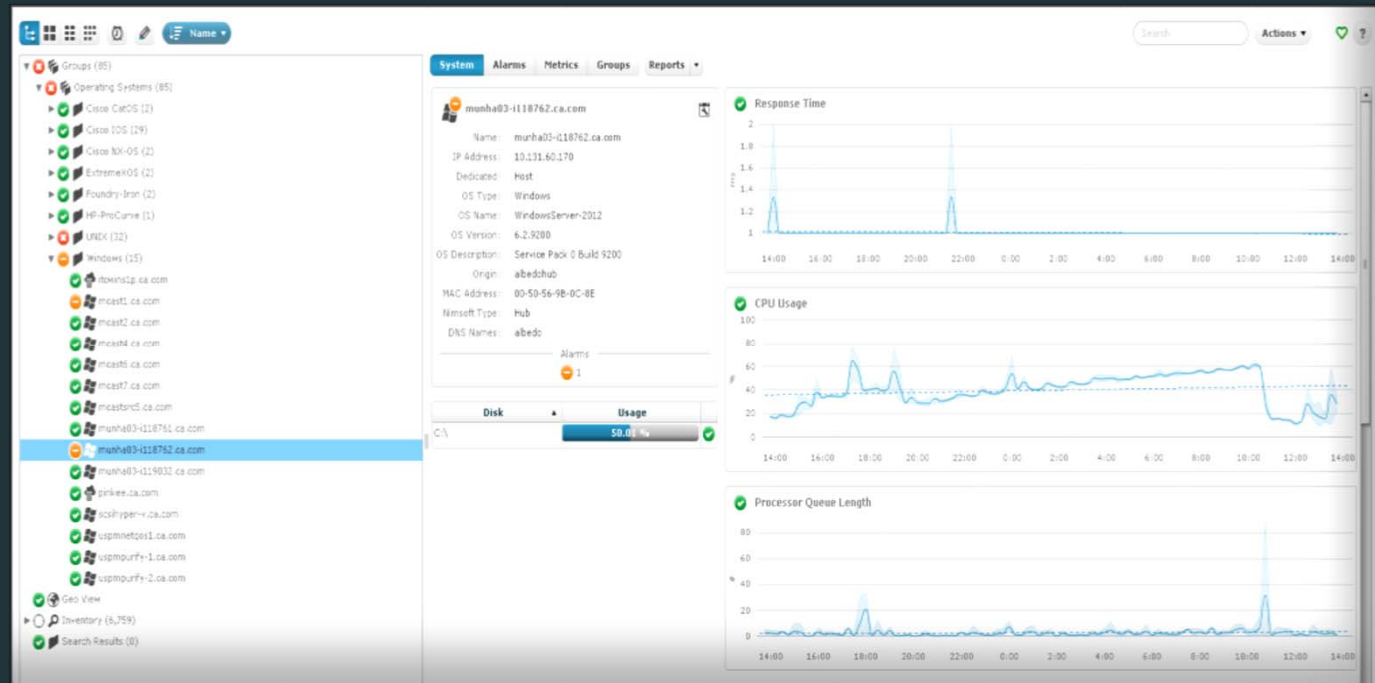
## Launch into UMP with Context.

- For more details, launch in context into UMP
- Each model will have a new menu item to launch into UMP for details



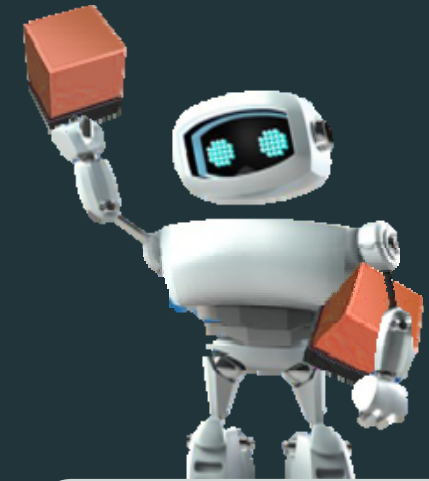
# UMP View of the Model

- UMP provides a lot more details of the selected model from CA Spectrum
- Drill down for model detail and also history and trends



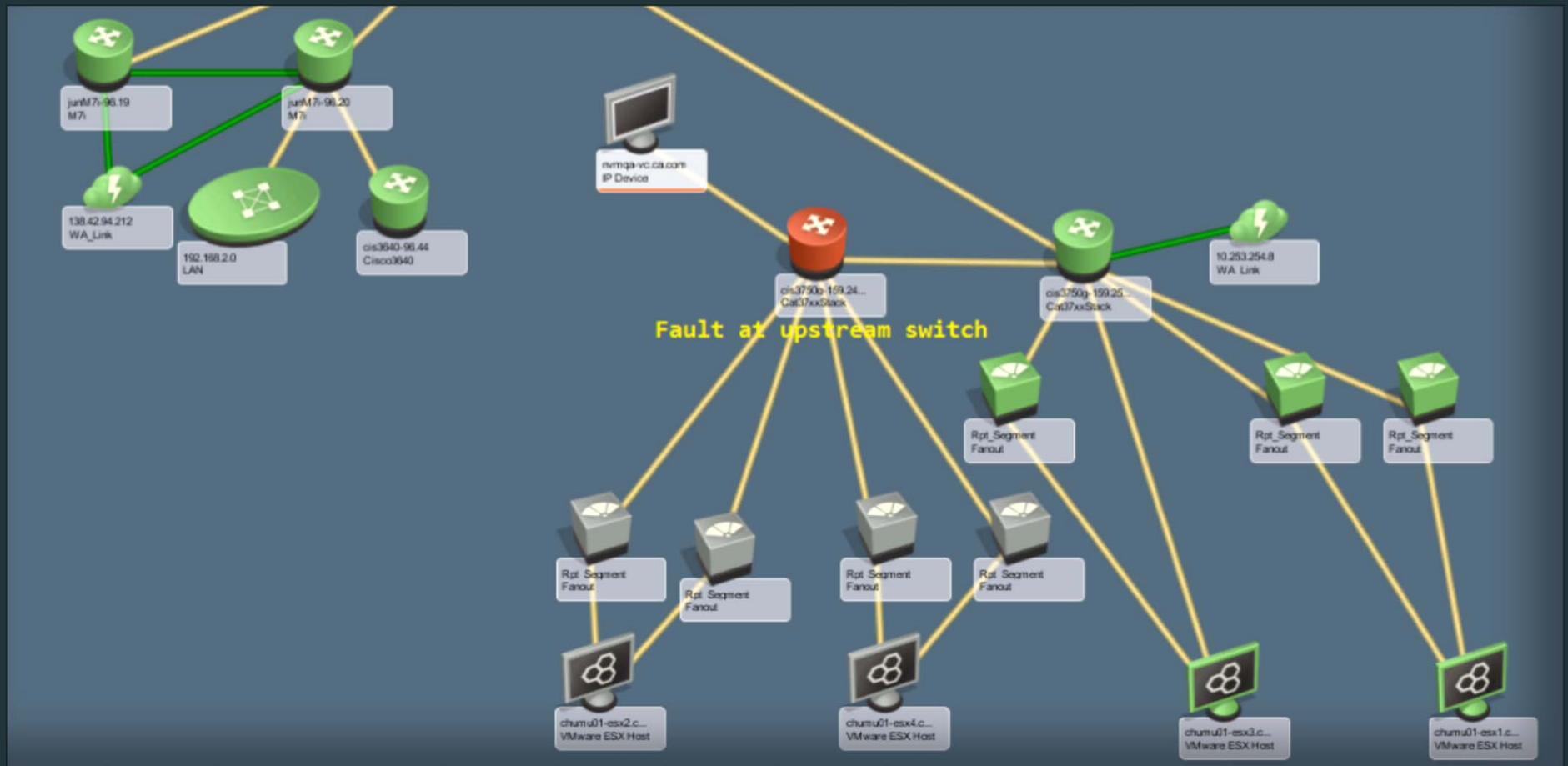
# Alarms

- Alarms are generated on CA Unified Infrastructure Management Servers based on traps received
- Existing CA Spectrum alarms are suppressed
- Alarms from CA Unified Infrastructure Management will participate in fault isolation
- CA Unified Infrastructure Management alarms get suppressed if root cause of the fault is at the upstream router



**ALARMS**

# Root Cause Identified

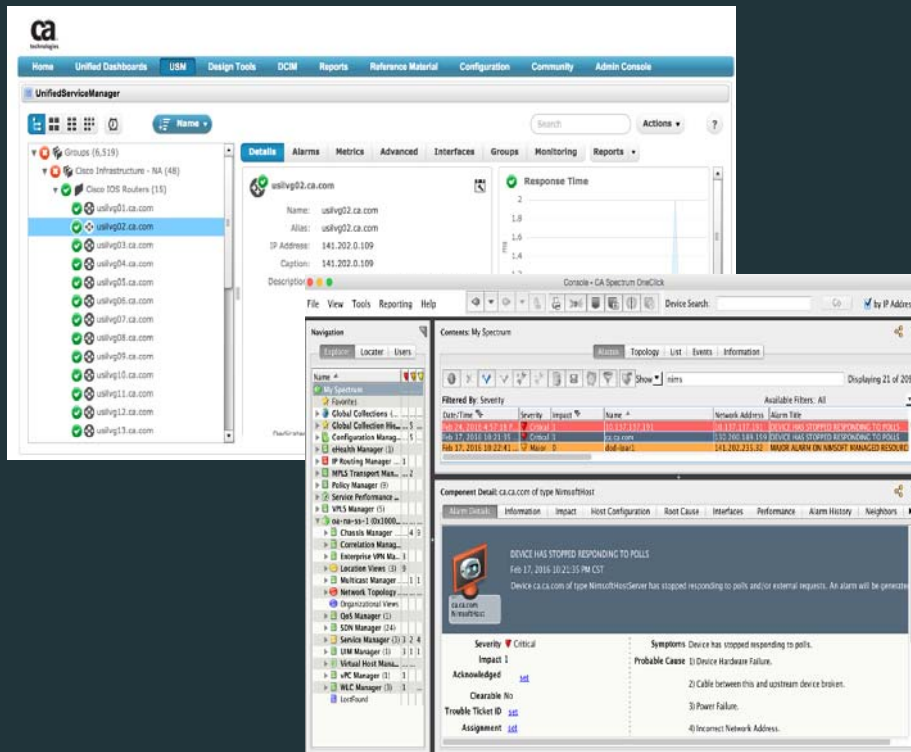


## Reconciliation of CA UIM Host and Virtual entities within CA Spectrum

- Single model in CA Spectrum representing the same CA UIM entity when it is managed as Host and virtual entity in CA UIM
- Both type of entities will be reconciled to existing CA Spectrum model if present
- Will be part of both Servers and Vmware Hierarchy
- Will have QOS as well as Vmware Metric views



# Unified Infrastructure Management (UIM) Integration

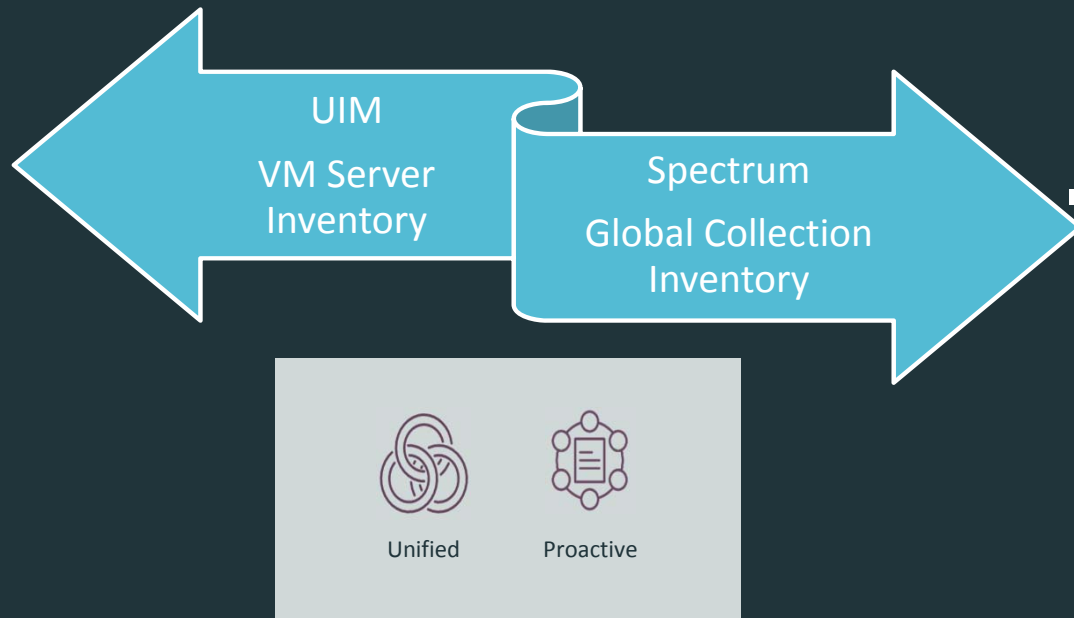


- UIM can now leverage CA Spectrum capabilities for deeper fault and root cause analysis
- Ability to visualize CA Spectrum alarms directly in CA Unified Infrastructure Management
- Alarm View to eliminate the number of non-actionable alarms
- Automatic and bi-directional alarm updates reduce manual labor



# Bi-Directional Inventory Integration

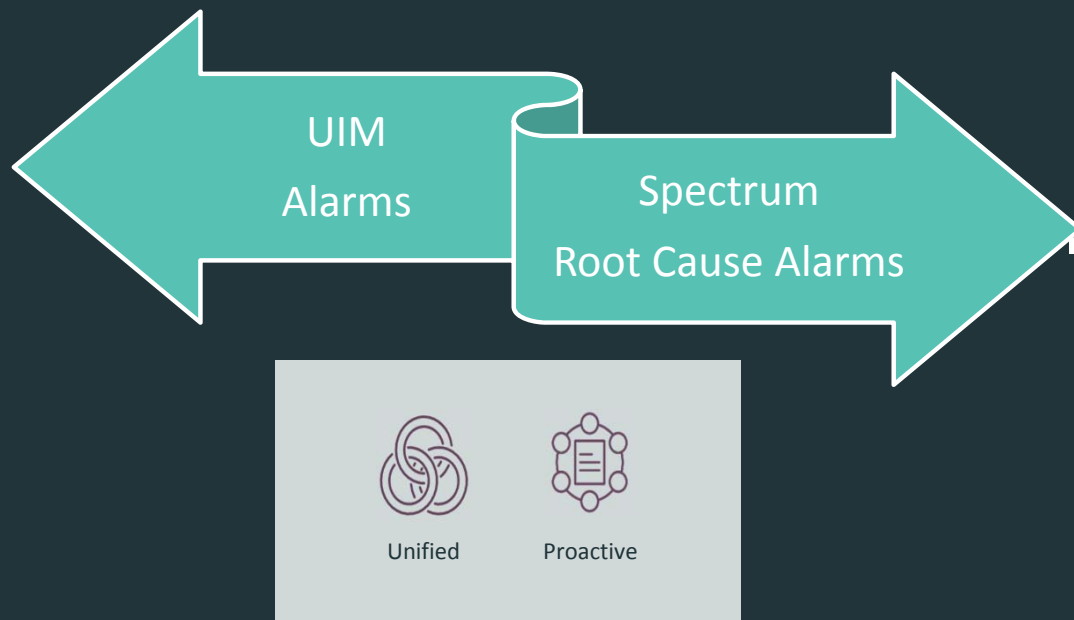
Spectrum and Unified Infrastructure Management (UIM)



- UIM VM/Host Server Inventory and Relationships are imported to Spectrum
- Spectrum Global Collection Inventory for monitoring are import to UIM

# Bi-Directional Alert Integration

## Spectrum and Unified Infrastructure Management (UIM)



- Alarms raised in UIM, are visible in Spectrum
  - Spectrum Alarms updated in UIM will be updated in Spectrum
- Alarms raised in Spectrum, are visible in UIM
  - UIM Alarms updated in Spectrum will be updated in UIM

# Enhancements to UIM Integration

