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## CA Spectrum – VNA Integration to support SDN/NFV

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# Integration with CA Virtual Network Assurance

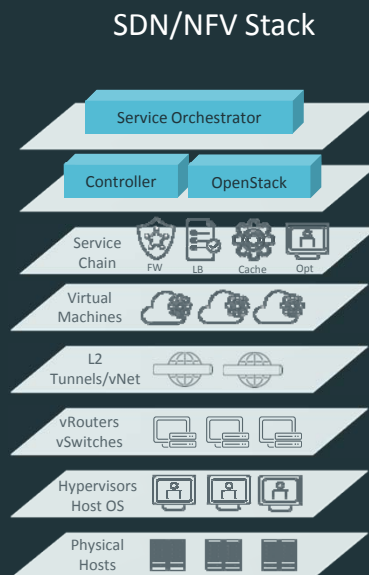
We're at the Beginning of a Revolution...Are you Ready?

*SDN/NFV will fuel the Application Economy*



# Tomorrow's Infrastructure Management Solutions

CA Spectrum  
with CA Virtual Network  
Assurance



## Overview

- Use the same monitoring and management mechanisms and UI that you have been using, to manage all facets of your environment
- Discovering and modeling Virtual Infrastructure, devices and services in Spectrum
- Visibility on how the virtual infrastructure is connected to physical and visualize dynamic networking resources with the topology view
- Abstracted resources can be monitored and managed in the same way as their static networking counterparts to keep up with the frequency, scope and scale of all the
- Integrated with CA Virtual Network Assurance aka SDN Gateway

## Integrate with CA Virtual Network Assurance aka SDN Gateway

- From Administration page configure CA VNA with SDN Gateway information

**SDN Gateway Integration Configuration**

SDN Gateway Server Host Name

SDN Gateway Server Port

Select a SpectroSERVER  ▼

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

SDN Gateway Integration ☐ enable ☒ disable

# Spectrum SDN Models

- Compute Node as SNMP Model

- Interfaces provided by gateway are reconciled with the spectrum discovered physical interfaces based on MAC/IfIndex
- Compute Node discovery initiates Layer2 mapping process to resolve its connection to its upstream switches

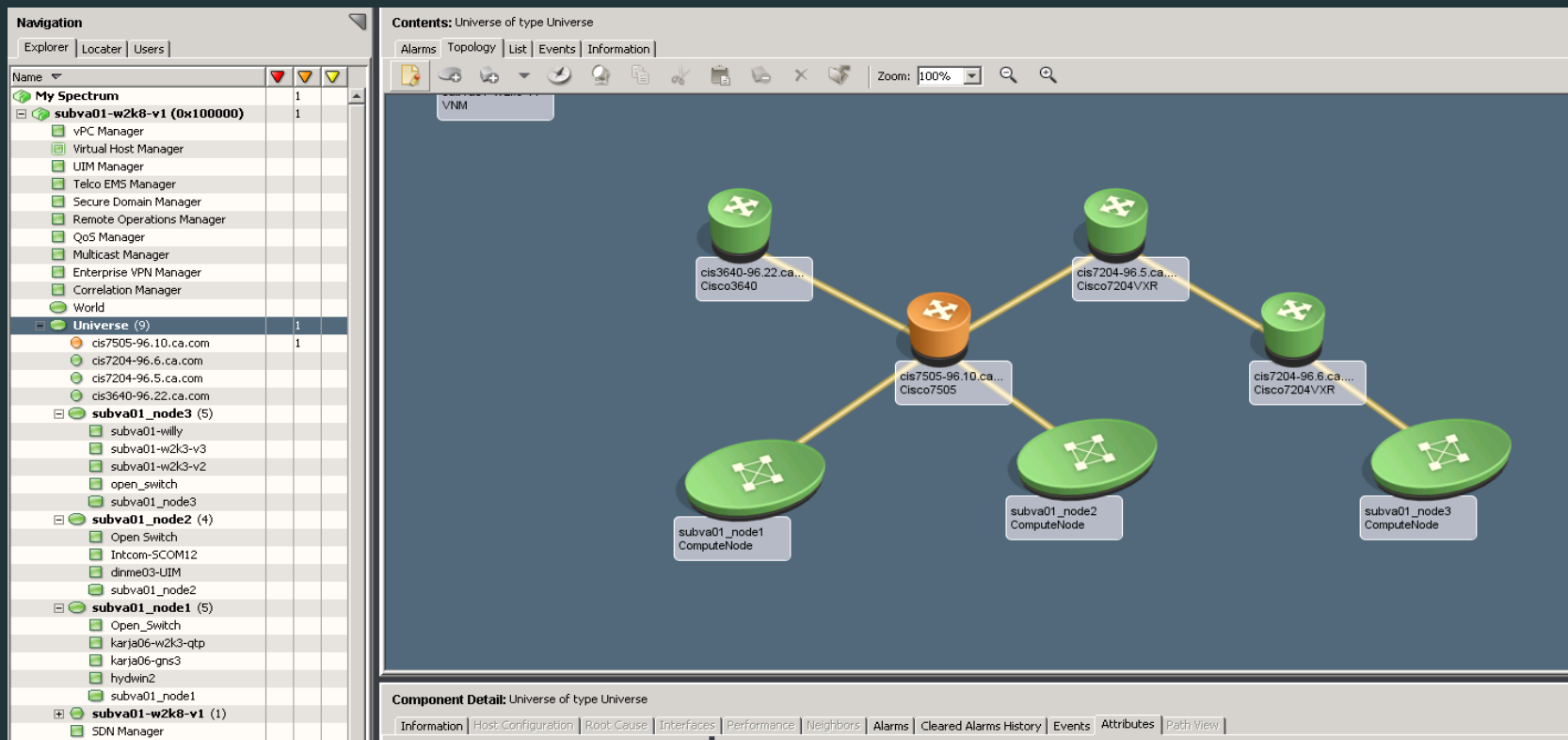
- Virtual Machine as pseudo models (SDN\_VM)

- Spectrum models only the VMs
- Operational Status of VM is provided by VNA(SDN Gateway)
- Pre-modeled VMs (snmp/pingable) are managed by Spectrum
- Spectrum cannot directly always ping as the Data center might have the same IP address in different subnets

## Spectrum SDN Models

- Virtual Network Function as app associated with VM
- vSwitch
- Network
- Tenants
- SFC

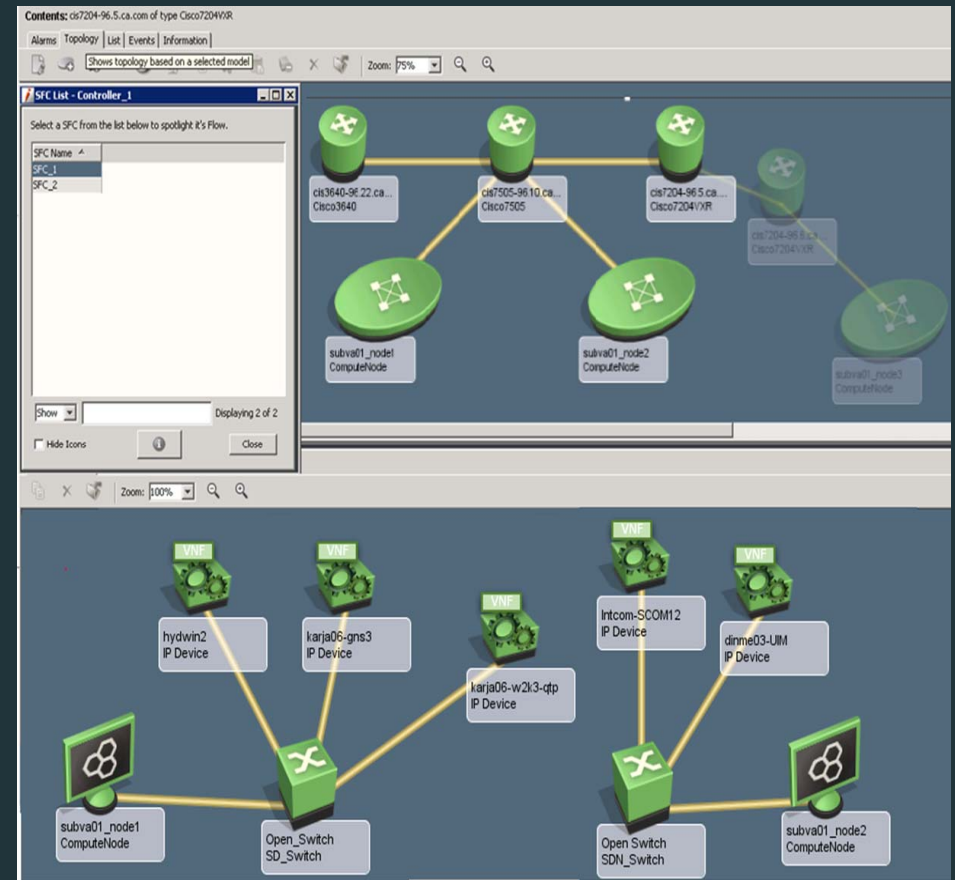
# Physical overlay vis-à-vis virtual overlay topology





# Service Function Chain

- Provides the ability to define an ordered list of a network services. These service are then "stitched" together in the network to create a service chain



# OneClick Views

New views added like SDN Manager, Neighbors topology, Spotlight view

The screenshot displays the SDN Manager interface. On the left, a tree view shows the hierarchy of components under 'SDN Manager (11)'. The main panel shows a list of components with their counts and a 'Component Detail' section for 'karja06-gns3.ca.com of type systemEDGE Host'. A 'Service Function Chain - COM...' dialog box is open on the right, showing a list of SFCs and their tenants. Below the dialog, a topology diagram shows the network structure.

Name	Tenant
3f35ba17-352f-4a29-b1...	TENANT_3
48dd241a-caa5-4d69-b...	TENANT_2
5c9f7575-4bc9-4e84-a...	TENANT_4
5d286687-3315-4e60-9...	TENANT_1
ca975441-746b-439e-8...	TENANT_2

Topology Diagram:

- cs3750g-159.25... Cat3750Stack
- karja06-gns3.ca.... systemEDGE Host
- VSwitch\_comput... VSwitch

