RSAConference2017
San Francisco | February 13 – 17 | Moscone Center

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SESSION ID: CSV-W02

# Open Security Controller - Security Orchestration for OpenStack

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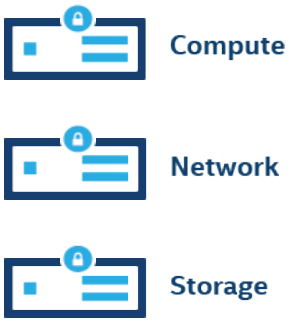
# SDI—The Application Defines the System

- **The evolution to software-defined infrastructure**

One application per system

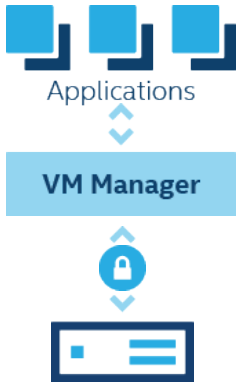
**Static perimeter-focused security hardware appliances**




TRADITIONAL HARDWARE

One application per virtual system

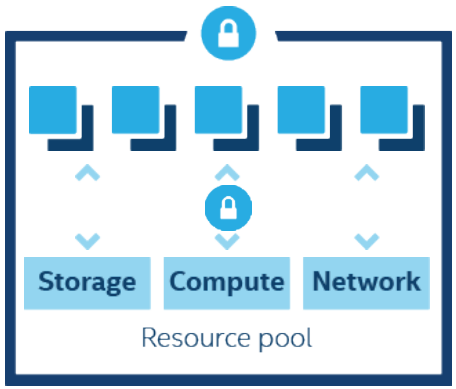
**Partially automated security physical/virtual appliances**




ABSTRACTING THE HARDWARE

Applications **define** the system

**Fully automated software-defined security**

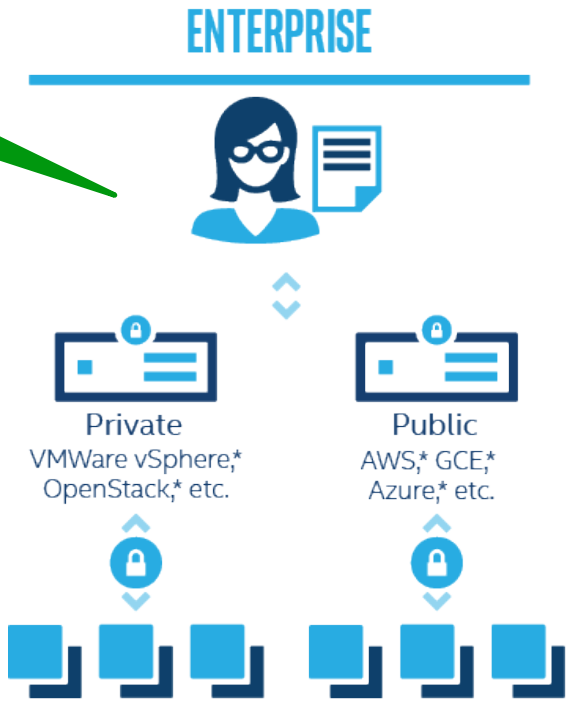



ABSTRACTING THE DATA CENTER

# Enterprise Multi Cloud Security Challenges



How can I provide consistent security across a multi cloud data center environment.




OPEN SECURITY CONTROLLER

Open Security Controller addresses this challenge.

# Open Security Controller Key Design Goals



**Centralized security policy management** for a multi cloud environment.

**Automated provisioning, distribution, and delivery** of security inside data center perimeter

**Dynamic scale-out Security** VNFs

**No Lock-in**
Vendor agnostic open solution

**Policies aligned** with specific application workloads

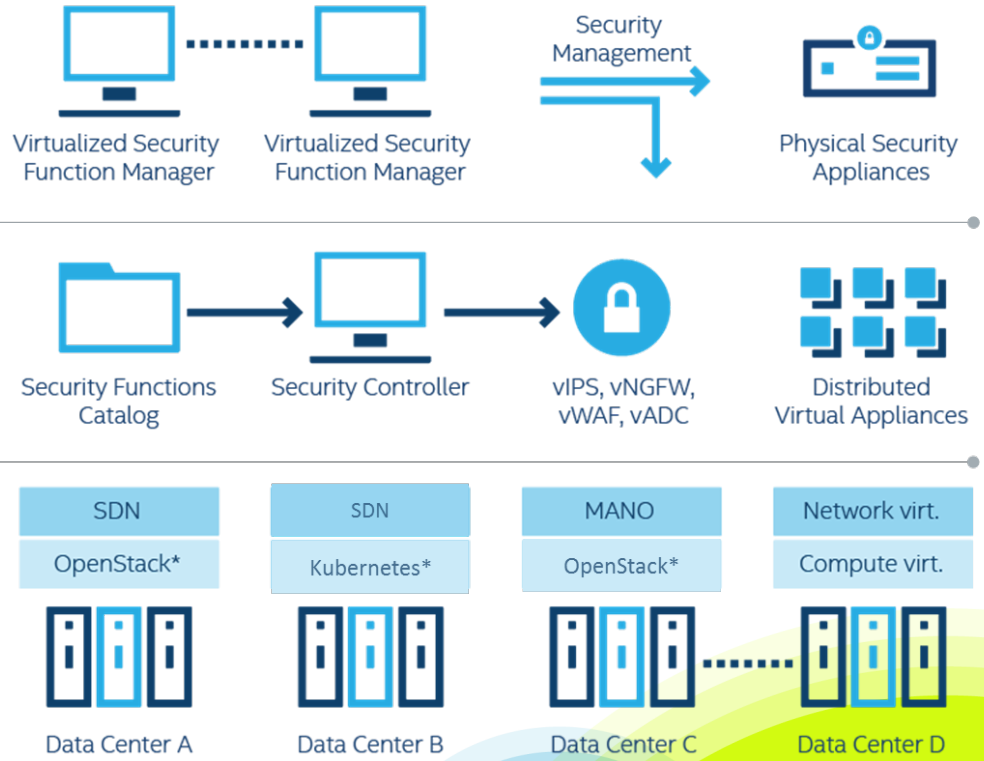
**Separation of duties** to enable use of familiar tools

# Conceptual Architecture



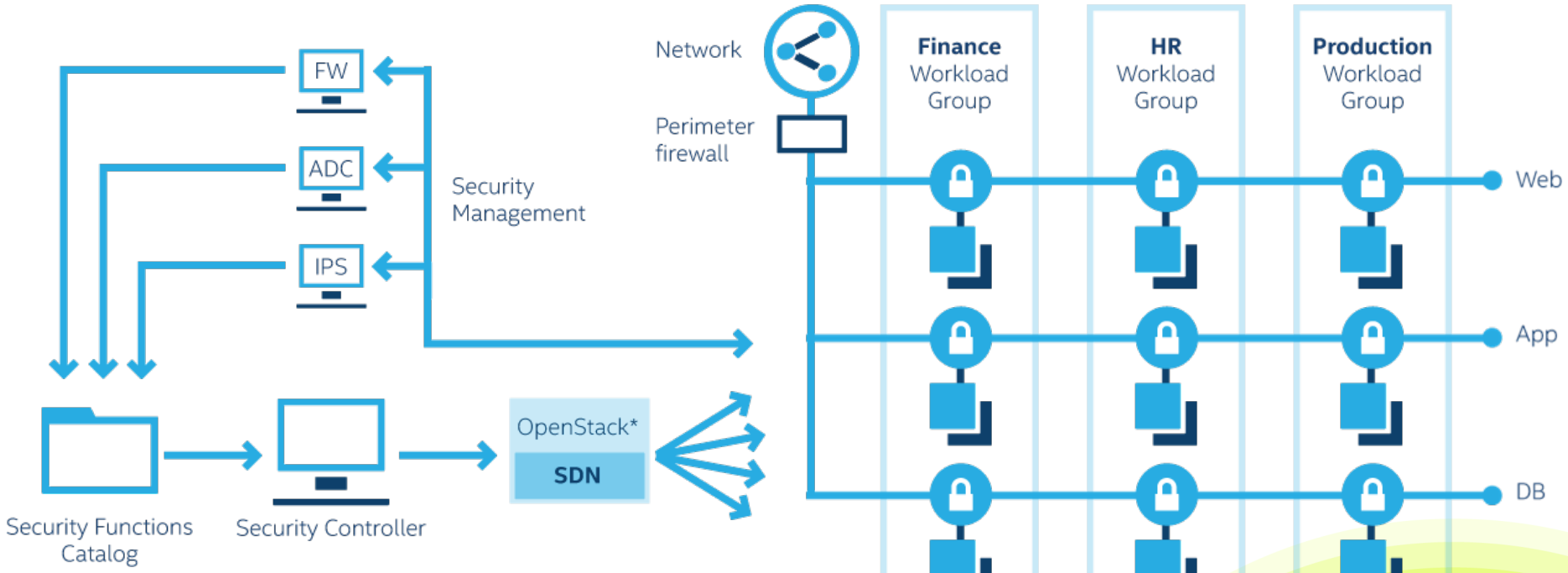
**Orchestrating security policies with network provisioning across *multiple virtual environments***

| | |
|---|---|
| Security Function Manager | Centralized management and separation of duties |
| Security Controller | Security service automation and orchestration |
| Virtualization Infrastructure Management | Abstracts compute, storage, and network |

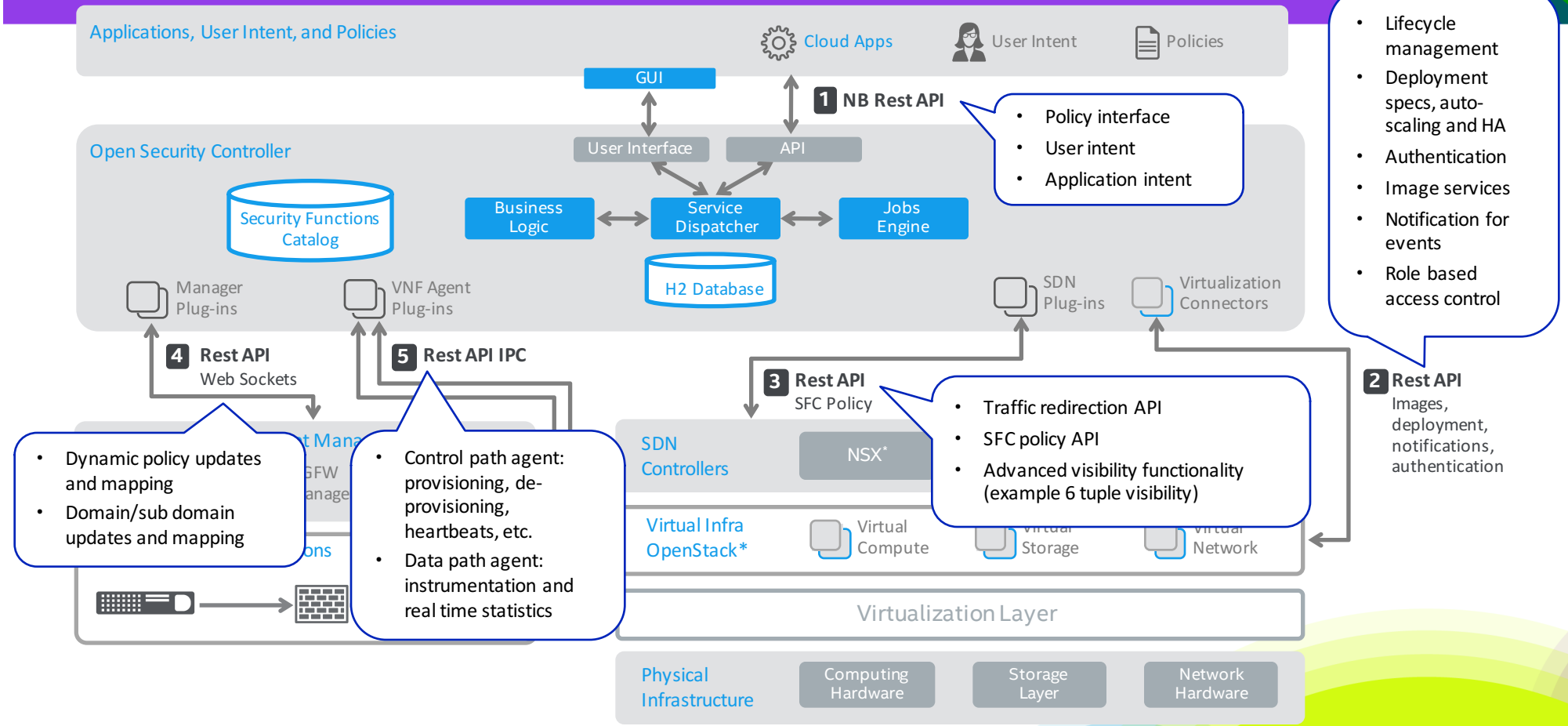


# OpenStack* Micro-Segmentation Use Case

- Advanced threat protection for East-West traffic flows



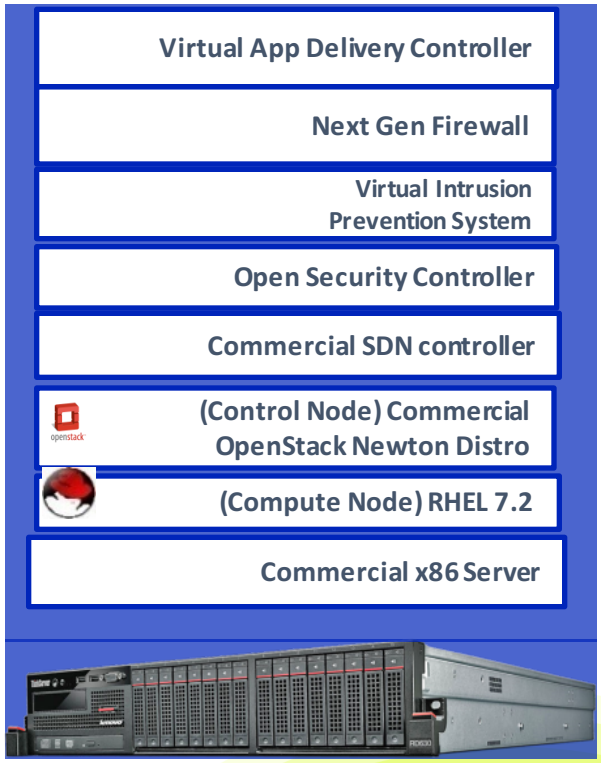
# OSC API Interaction Model



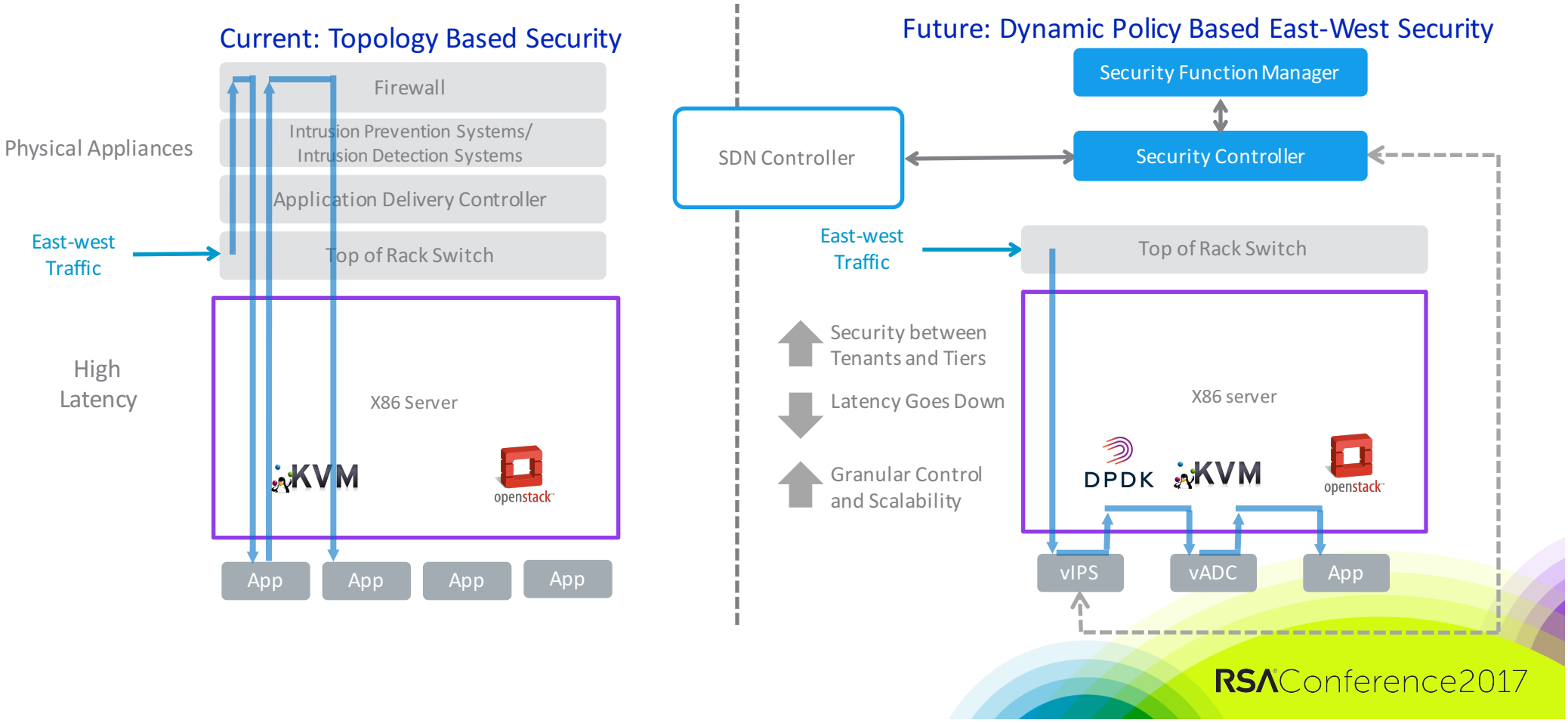
# Customer PoC: Health industry IT services provider



- Customer has to adhere to HIPAA regulatory requirements
- Existing solution was based on DC edge devices.
- Customer wanted to get to a dynamic policy based security solution for East-West traffic inspection.



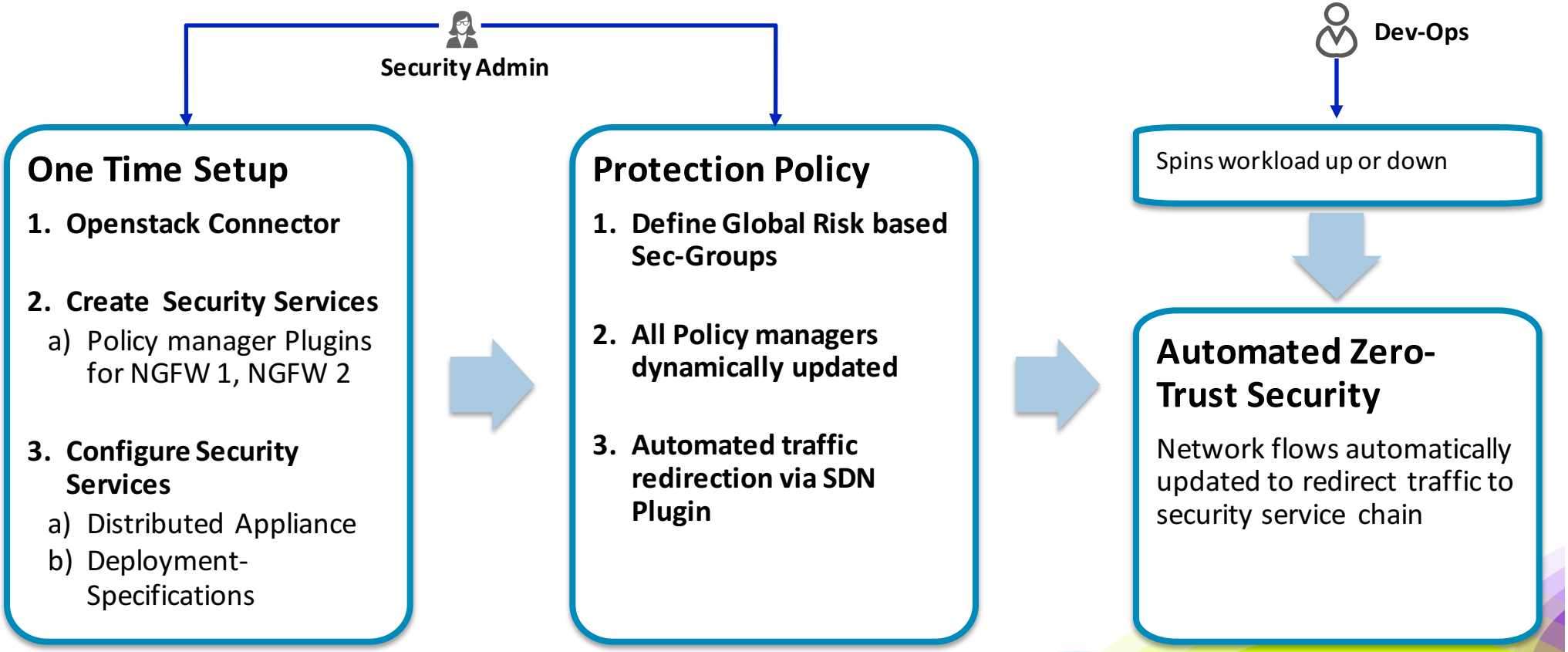
# Customer Deployment Architecture



# Customer PoC: Large financial services provider

- Customer has to adhere to PCI regulatory requirements
- Customer wanted to get to a Risk Based automated security policy management capability for their Openstack environment

# Customer deployment Workflow



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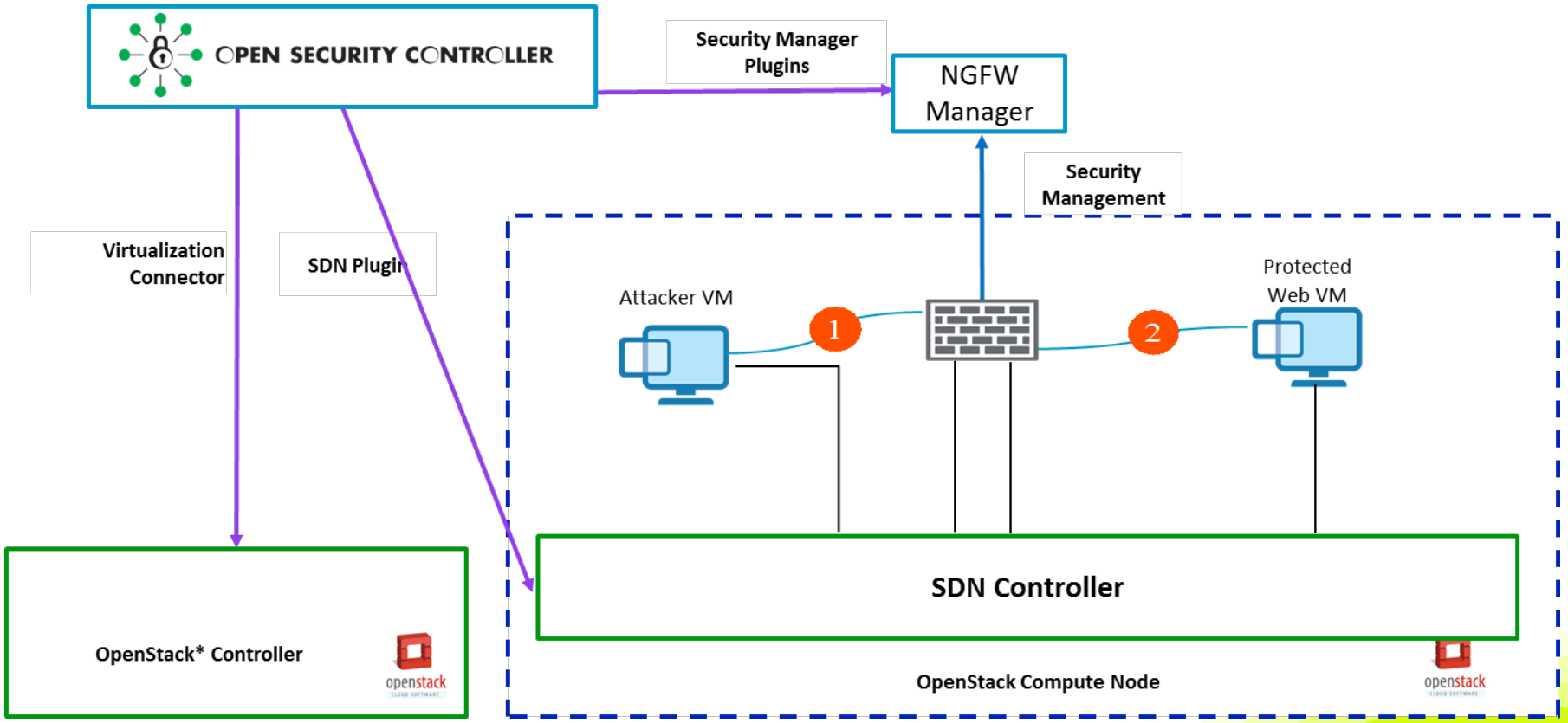
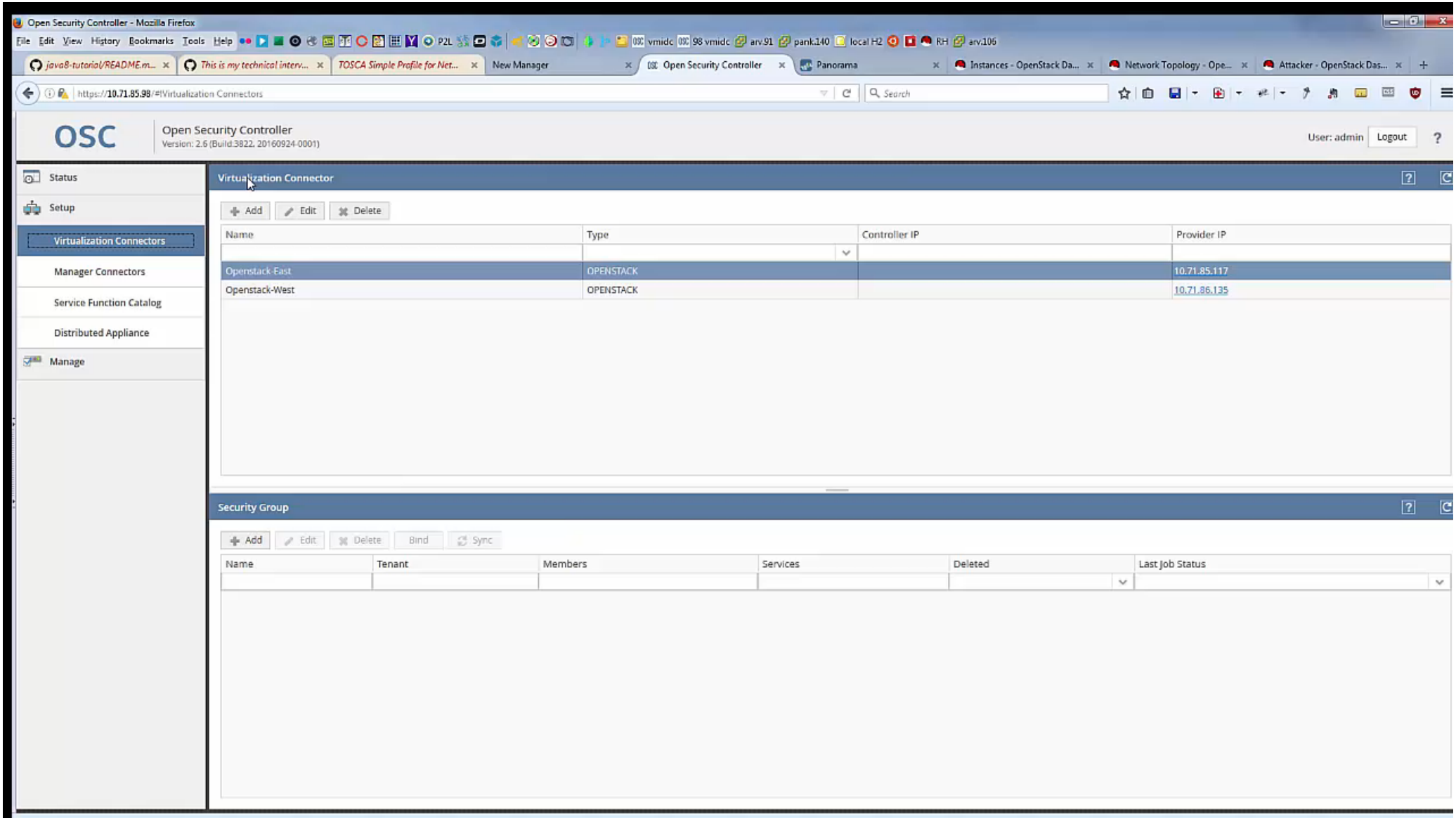
# DEMO

## Automated Security Services Orchestration for Openstack

# Demo Topology




Open Security Controller - Mozilla Firefox
https://10.71.85.98/#!Virtualization Connectors
OSC
Open Security Controller
Version: 2.6 (Build:3822, 20160924-0001)
User: admin
Logout
Status
Setup
Virtualization Connectors
Manager Connectors
Service Function Catalog
Distributed Appliance
Manage
Virtualization Connector
Add
Edit
Delete
Name
Type
Controller IP
Provider IP
Openstack-East
OPENSTACK
10.71.85.117
Openstack-West
OPENSTACK
10.71.86.135
Security Group
Add
Edit
Delete
Bind
Sync
Name
Tenant
Members
Services
Deleted
Last Job Status

# Apply: Risk Based Approach



1. Identify workload which needs micro segmentation
2. Identify security controls to mitigate risks (vIPS, vNGFW, vADC)
3. Automate Security Controls orchestration

# Call to Action



- Current Status
  - POC with early adopter customers / Security VNF's
  - Open Security Controller available as Opensource ~ Mid 2017 compatible with few Security VNF and SDN vendors
- Call to Action
  - Contact us to get engaged in the community: Email: manish.dave@intel.com or Tarun@intel.com
  - Additional Information: www.intel.com/osc