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The bridge to possible

Deploy Cisco Secure Firewall in OpenStack

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BRKSEC-1775



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Cisco Webex App

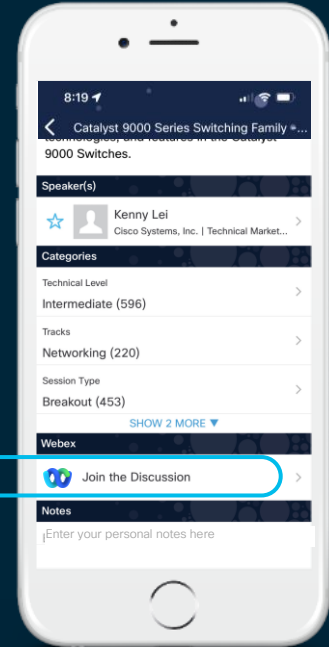
Questions?

Use Cisco Webex App to chat with the speaker after the session

How

- 1 Find this session in the Cisco Live Mobile App
- 2 Click “Join the Discussion”
- 3 Install the Webex App or go directly to the Webex space
- 4 Enter messages/questions in the Webex space

Webex spaces will be moderated by the speaker until June 17, 2022.



<https://ciscolive.ciscoevents.com/ciscolivebot/#BRKSEC-1775>



Agenda

- Introduction
- What is OpenStack
- Use cases
- Cisco Secure Firewall deployment
- Demo
- Additional resources

WHY and WHY !!! I thought Firewalls were going away

- **Private Cloud**

- FMCv and FTDv
 - ESXi 7.0 support
 - Support for: Cisco Hyperflex, Nutanix Enterprise Cloud, OpenStack
- ASAc Docker containers

- **Public Cloud**

- Azure Application Insights for FTD metrics
- GCP
- AWS
- Oracle



A bit about your Speaker

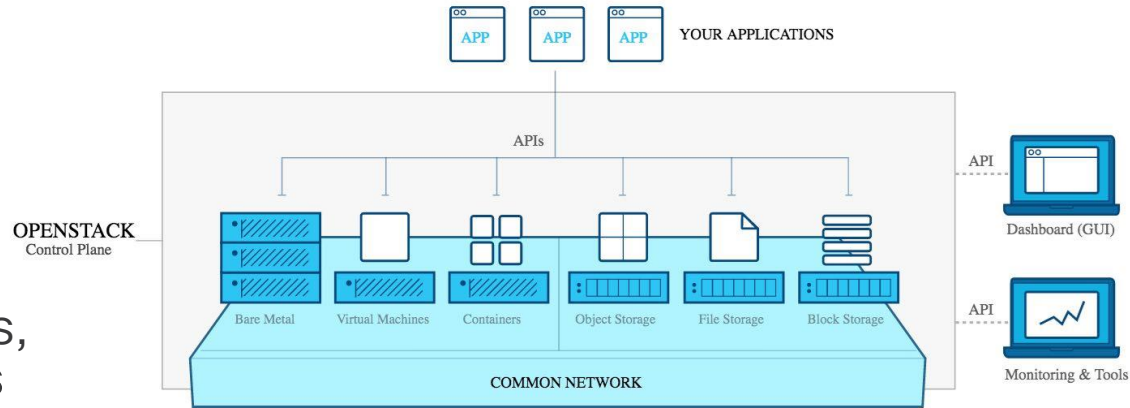
- Technical Marketing Engineer at Cisco Systems based in Krakow Poland
- Worked on OpenStack since Icehouse
- ~2+ Years with Cisco Systems
- Before Cisco Systems, 18+ years working at Partner Level as a Consulting Engineer in the USA
- Focused on Enterprise Security Products
- Several Sessions and Papers on Security
- Recently Moved to NetSEC Team
- Main objective is Security in the Cloud & Automation



What is OpenStack

Overview of OpenStack

- Cloud computing platform for public/private clouds
- Abstracts data centers into pools of resources
- Provides management layer for efficient, automated allocation of resources
- Empowers operators, admins, users via self service portals
- Provides APIs to develop cloud-aware applications



OpenStack is open source

HERE'S WHY THAT MATTERS

Choice & control: ability to choose between and switch vendors

Ability to contribute or directly influence the roadmap

Widely adopted open source APIs are the new standards

Part of a vibrant community to share knowledge and help each other

OPENSTACK PRINCIPLES

1

OPEN SOURCE

2

OPEN DESIGN

3

OPEN DEVELOPMENT

4

OPEN COMMUNITY

OpenStack is Dead? Right?

- Most Popular open-source platform
- One of the three biggest open-source projects
- More than 25M of cores
- More than 100 production clouds deployed in 2021



The OpenStack Community



81,000+

MEMBERS



187

COUNTRIES



670+

ORGANIZATIONS

Use Cases

With Cisco Secure Firewall on OpenStack, you get the convenience and flexibility of OpenStack along with

- World-class security controls
 - Protect your Network Edge environment
 - Cisco Talos Threat Intelligence
 - Malware Defense
 - Sandboxing
- Superior visibility
 - Streamline security policy and device management
 - Snort 3 IPS
 - TLS 1.3 Server Identity Discovery
 - Encrypted Visibility Engine
- Efficiency at scale
 - Extend cloud security beyond the firewall
 - Secure Firewall + Cisco SecureX
 - Secure Firewall + Secure Workload
 - Rapid deployment on Network Edge

Comprehensive Threat Prevention

- Prevention for an organization's entire cloud infrastructure, including public, private, and hybrid cloud deployments.

Advanced Threat Protection

- This provides industry-leading malware detection and blocking for cloud environments.

Unified Security Management

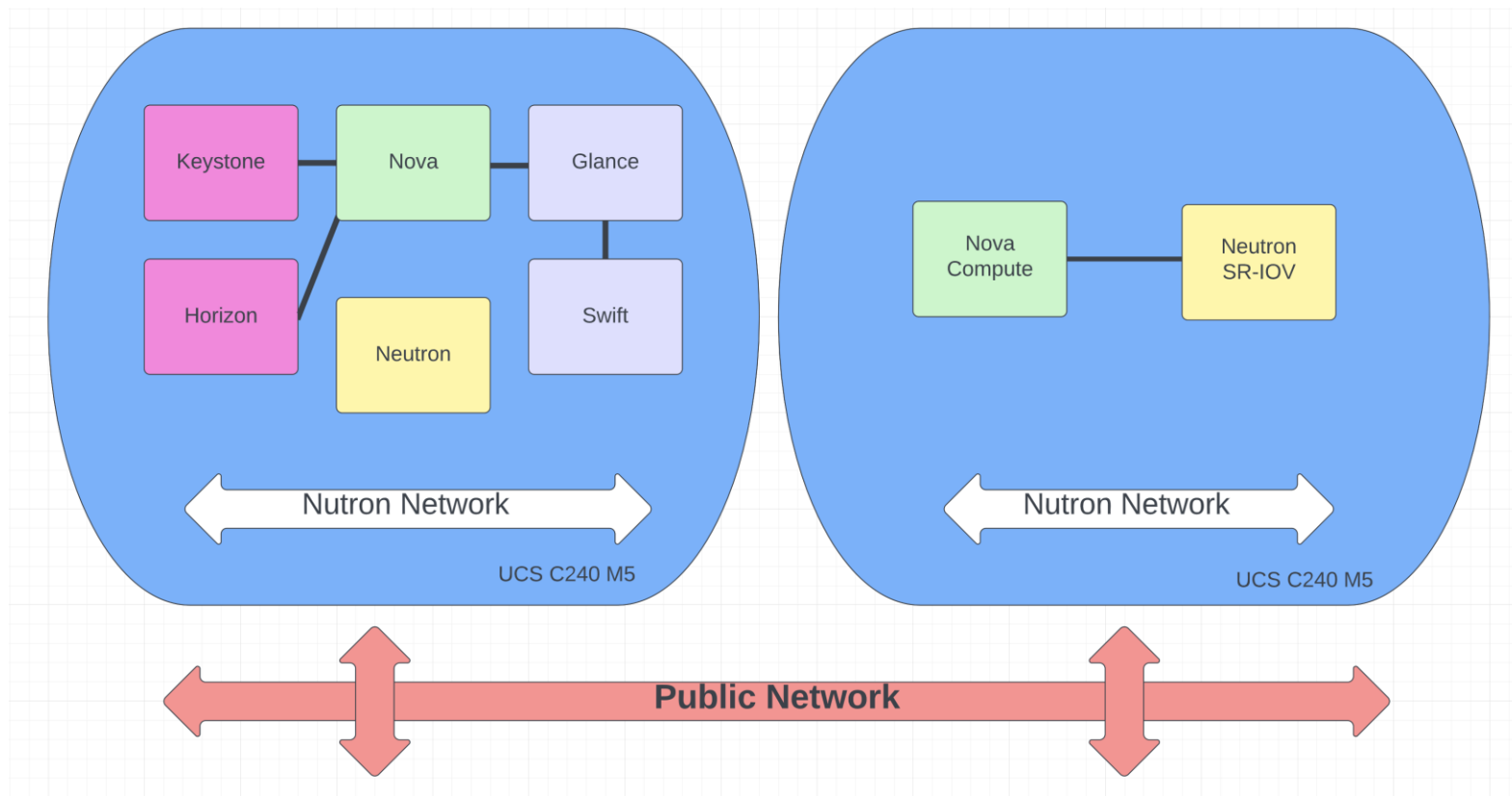
- Cisco Secure unifies cloud security management for control and visibility across virtual and physical environments

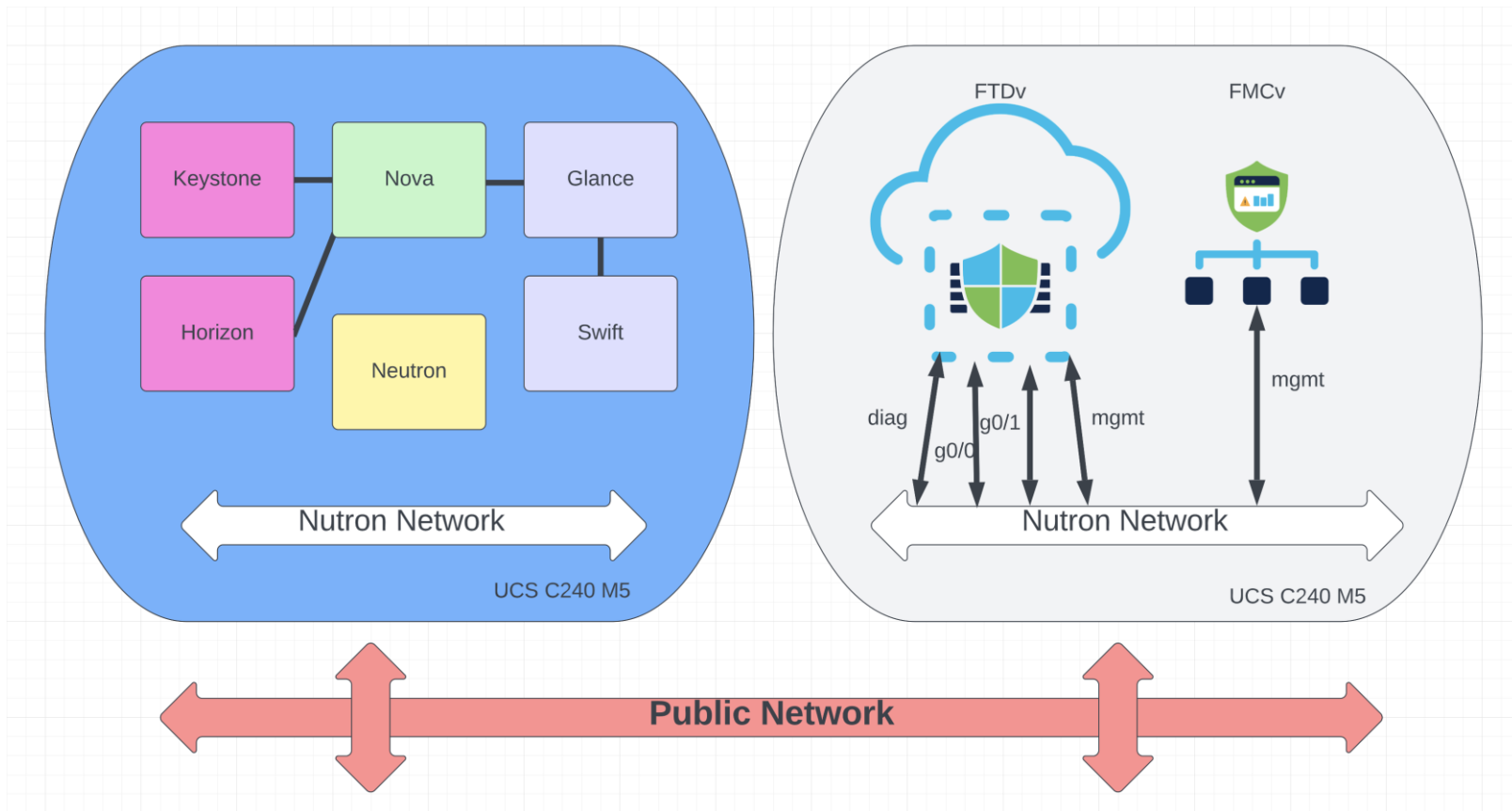
Cisco Secure Firewall deployment

Guidelines and Limitations

- Deployment of FTDv on the KVM hypervisor running on a compute node in your OpenStack environment.
- OpenStack CLI
- Heat template-based deployment (Terraform soon)
- OpenStack Horizon dashboard
- Routed mode (default)
- Licensing – Only BYOL is supported
- FTDv management using the FMC
- Drivers – virtIO, VPP, and SR-IOV

| Hardware and Software Requirements | | |
|------------------------------------|---------------------|--|
| Category | Supported Versions | Notes |
| Server Hardware | UCS C240 M5 | 2 UCS servers are recommended, one each for os-controller and os-compute nodes. |
| Drivers | VIRTIO, IXGBE, I40E | These are the supported drivers. |
| Operating System | Ubuntu Server 18.04 | This is the recommended OS on UCS servers. |
| OpenStack Version | Stein release | Details of the various OpenStack releases are available at: https://releases.openstack.org/ |





Demo

Applications Places Brave Web Browser 66.5°F Jun 15 11:55 AM

Secure Firewall - Cisco Develop Instance Overview - OpenSt no title specified

dashboard.vexxhost.net/project/

VEXXHOST dca97716-2568-11e4-a5ff-7e465eae23e7 • sjc1 dca97716-2568-11e4-a5ff-7e465eae23e7

Project

Project / Compute / Overview

API Access

Compute

Overview

Instances

Images

Key Pairs

Server Groups

Volumes

Container Infra

Network

Orchestration

DNS

Identity

Cluster

Overview

Limit Summary

Compute

| Resource | Used | Limit |
|-----------|---------------------|-------|
| Instances | Used 0 of 10 | 10 |
| VCPUs | Used 0 of 20 | 20 |
| RAM | Used 0Bytes of 50GB | 50GB |

Volume

| Resource | Used | Limit |
|------------------|-----------------------|--------|
| Volumes | Used 0 of 10 | 10 |
| Volume Snapshots | Used 0 of 10 | 10 |
| Volume Storage | Used 0Bytes of 1000GB | 1000GB |

Network

| Resource | Used | Limit |
|----------------------|-------------------|-------|
| Floating IPs | Allocated 0 of 50 | 50 |
| Security Groups | Used 1 of 10 | 10 |
| Security Group Rules | Used 4 of 100 | 100 |
| Networks | Used 0 of 100 | 100 |
| Ports | Used 0 of 500 | 500 |
| Routers | Used 0 of 10 | 10 |

Usage Summary

Select a period of time to query its usage:
The date should be in YYYY-MM-DD format.

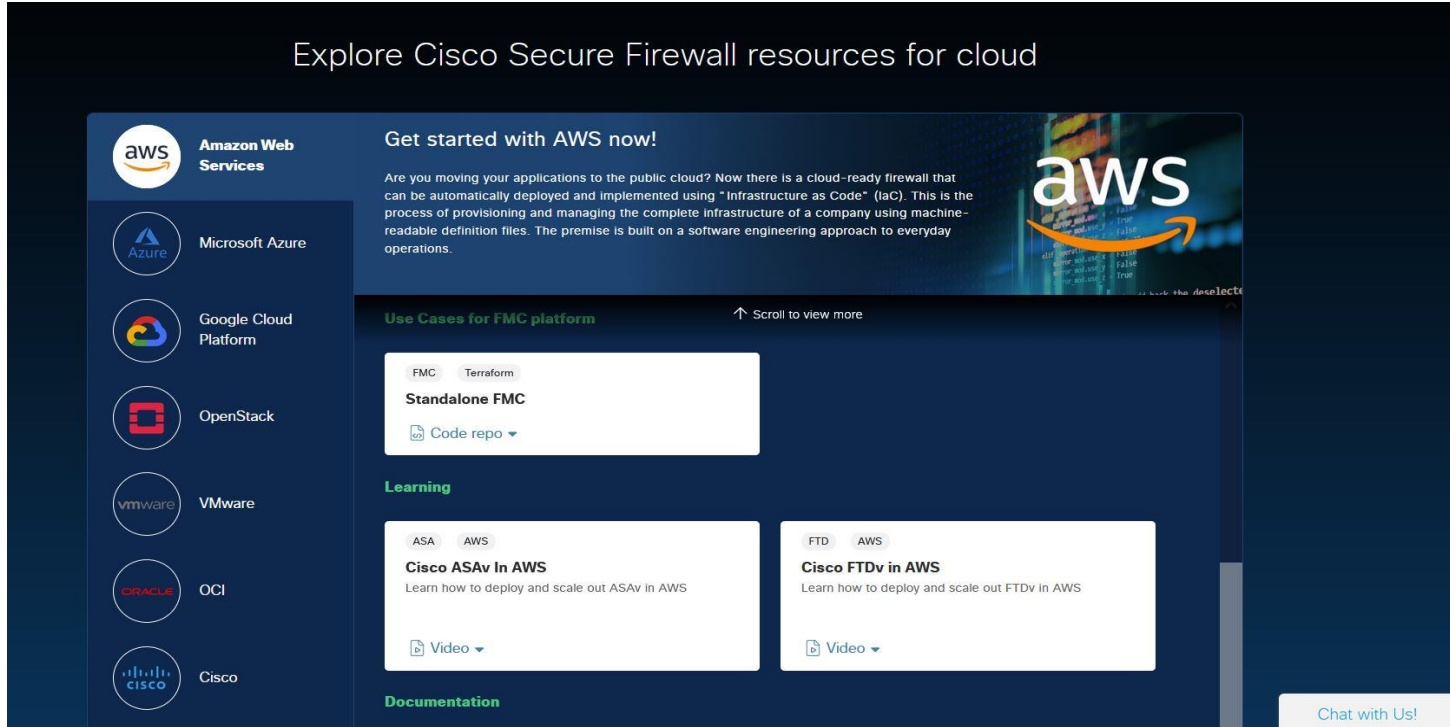
2022-06-14 to 2022-06-15 Submit

Active Instances: 0
Active RAM: 0Bytes

Additional resources

NEW Cloud Resource Page

- <https://developer.cisco.com/secure-firewall/cloud-resources/>



The screenshot displays the Cisco Secure Firewall Cloud Resource Page. At the top, a dark blue banner reads "Explore Cisco Secure Firewall resources for cloud". Below this, a sidebar on the left lists various cloud providers with their logos: Amazon Web Services, Microsoft Azure, Google Cloud Platform, OpenStack, VMware, OCI, and Cisco. The main content area features a "Get started with AWS now!" section with a paragraph about cloud-ready firewalls and Infrastructure as Code (IaC). To the right of this text is a large AWS logo. Below the AWS section, there are three main content blocks: "Use Cases for FMC platform" (with a "Standalone FMC" card and a "Code repo" link), "Learning" (with two cards: "Cisco ASA in AWS" and "Cisco FTD in AWS", each with a "Video" link), and "Documentation". A "Chat with Us!" button is located in the bottom right corner.

Technical Session Surveys

- Attendees who fill out a minimum of four session surveys and the overall event survey will get Cisco Live branded socks!
- Attendees will also earn 100 points in the Cisco Live Game for every survey completed.
- These points help you get on the leaderboard and increase your chances of winning daily and grand prizes.



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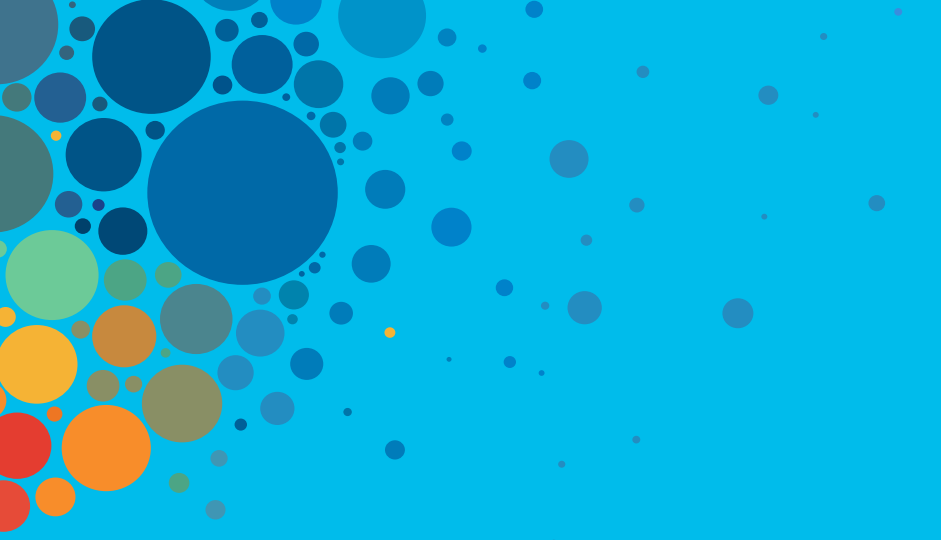
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Thank you

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