



The bridge to possible

# Google NCC and Cisco SD-WAN Integration

with Design Best Practices

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BRKENT-2281



#CiscoLive

# Cisco Webex App

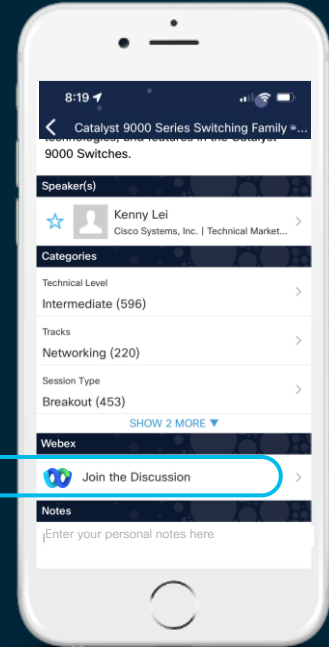
## Questions?

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.



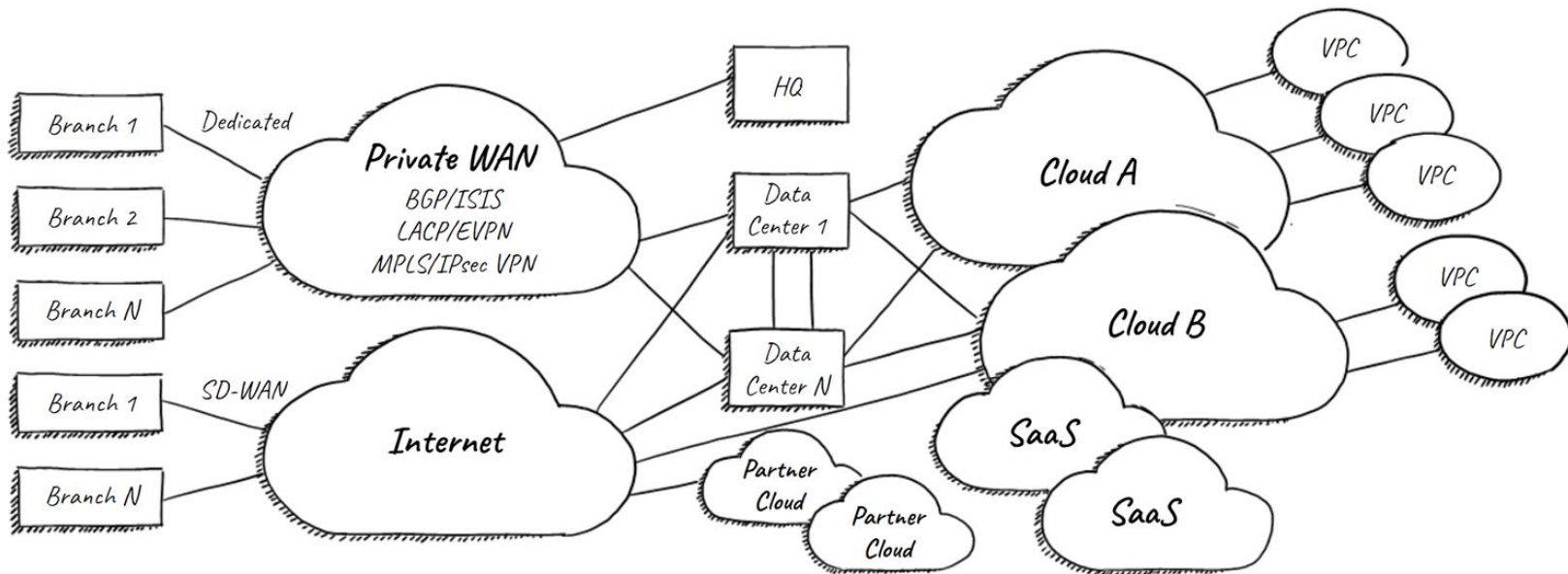
<https://ciscolive.ciscoevents.com/ciscolivebot/# BRKENT-2281>



# Agenda

- What is Google NCC ?
- Google NCC Integration & Top use cases
- Connectivity options
- Design flexibility
- Summary & Key Takeaways

# Managing enterprise networks is increasingly complex



Months to build topology  
& capacity

Multiple control, data &  
management planes

Complex hybrid & multi-cloud  
networks

# Simplicity and Agility for your Business



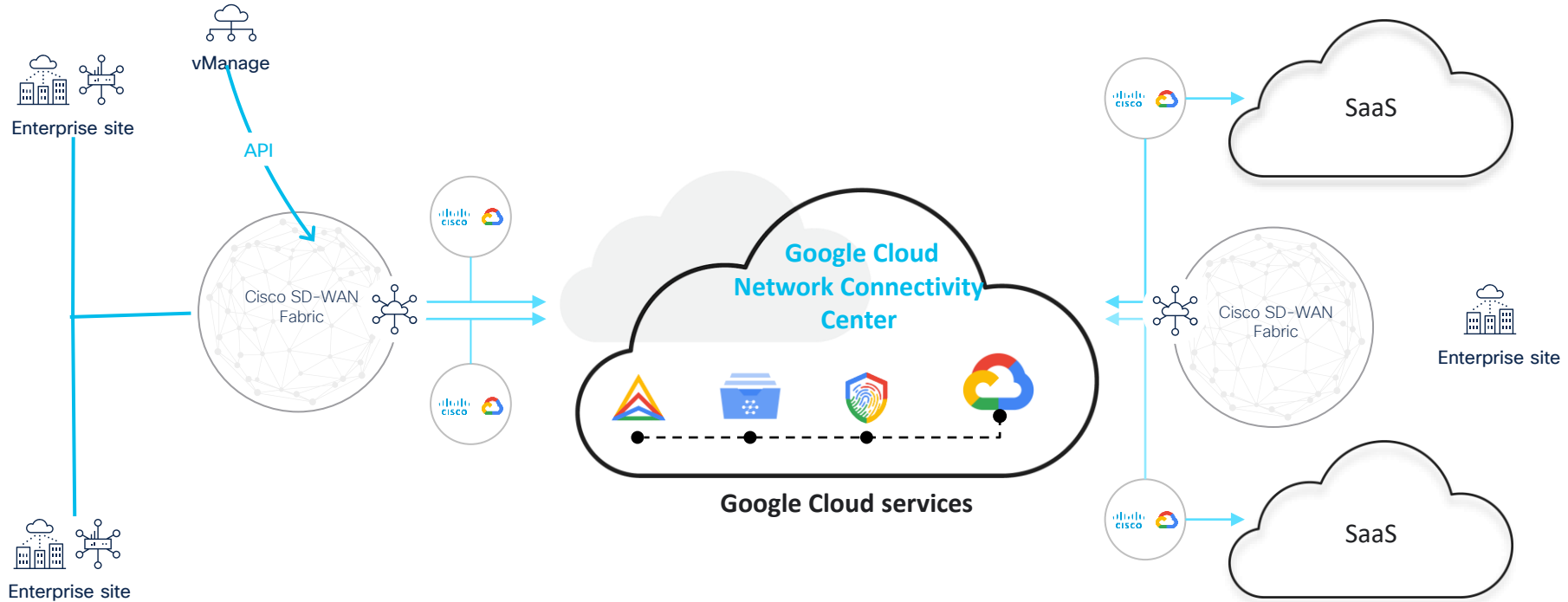
# Cisco SD-WAN Cloud Hub and Google Cloud Network Connectivity Center



= Cisco SD-WAN router on-premises



= Cisco SD-WAN cloud router at Google Cloud



Cisco SD-WAN Cloud Hub with Google Cloud

# Introducing Google NCC

# Google Cloud Network at your service

34 regions

88 zones

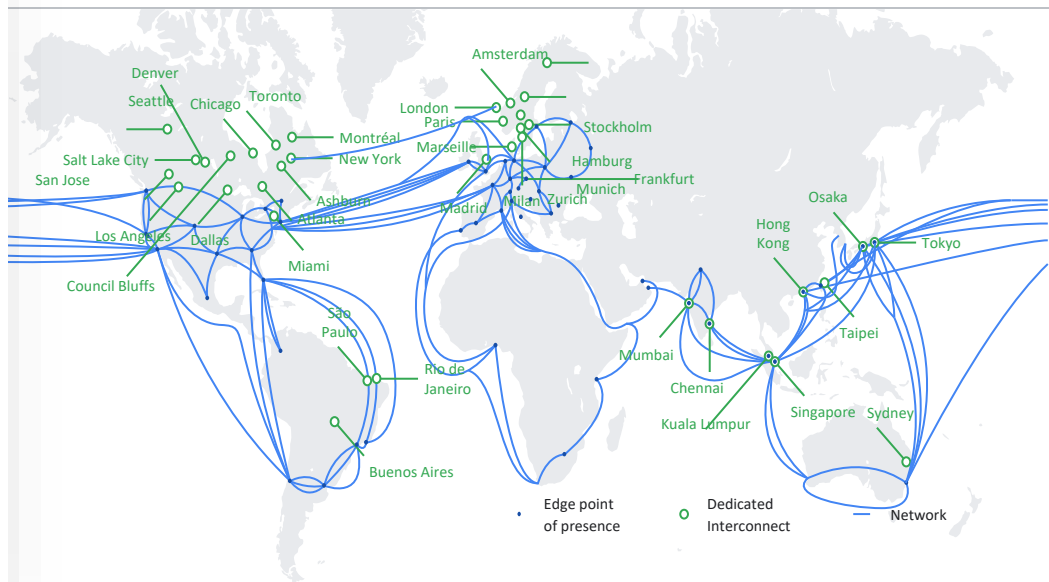
146 Edge PoPs

16 subsea cables

200+ countries

1000s of Edge Nodes

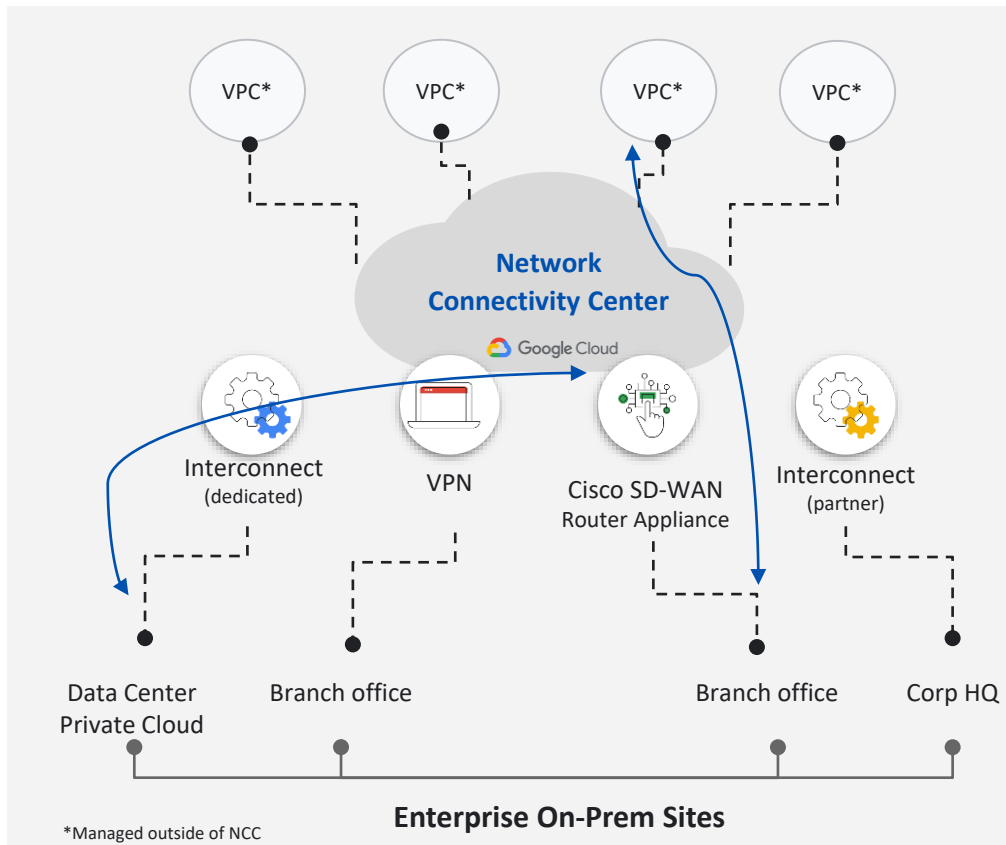
100% Carbon Neutral since 2007





# Network Connectivity Center

Meeting your business where you are



**Network Connectivity Center is now GA** - provides simple, centralized network connectivity across SD-WAN, VPN & Interconnect products with global connectivity

**Dedicated Interconnect** - 99.99% SLA, Multi-100 Gbps connectivity

**Partner Interconnect** - Connect to Google Cloud via your Service Provider (50 Mbps to 50 Gbps)

**IPSec encrypted cloud Interconnect** for secure encrypted Private Connectivity to GCP Resources

**HA VPN** for 99.99% SLA for IPSec VPN to Google Cloud

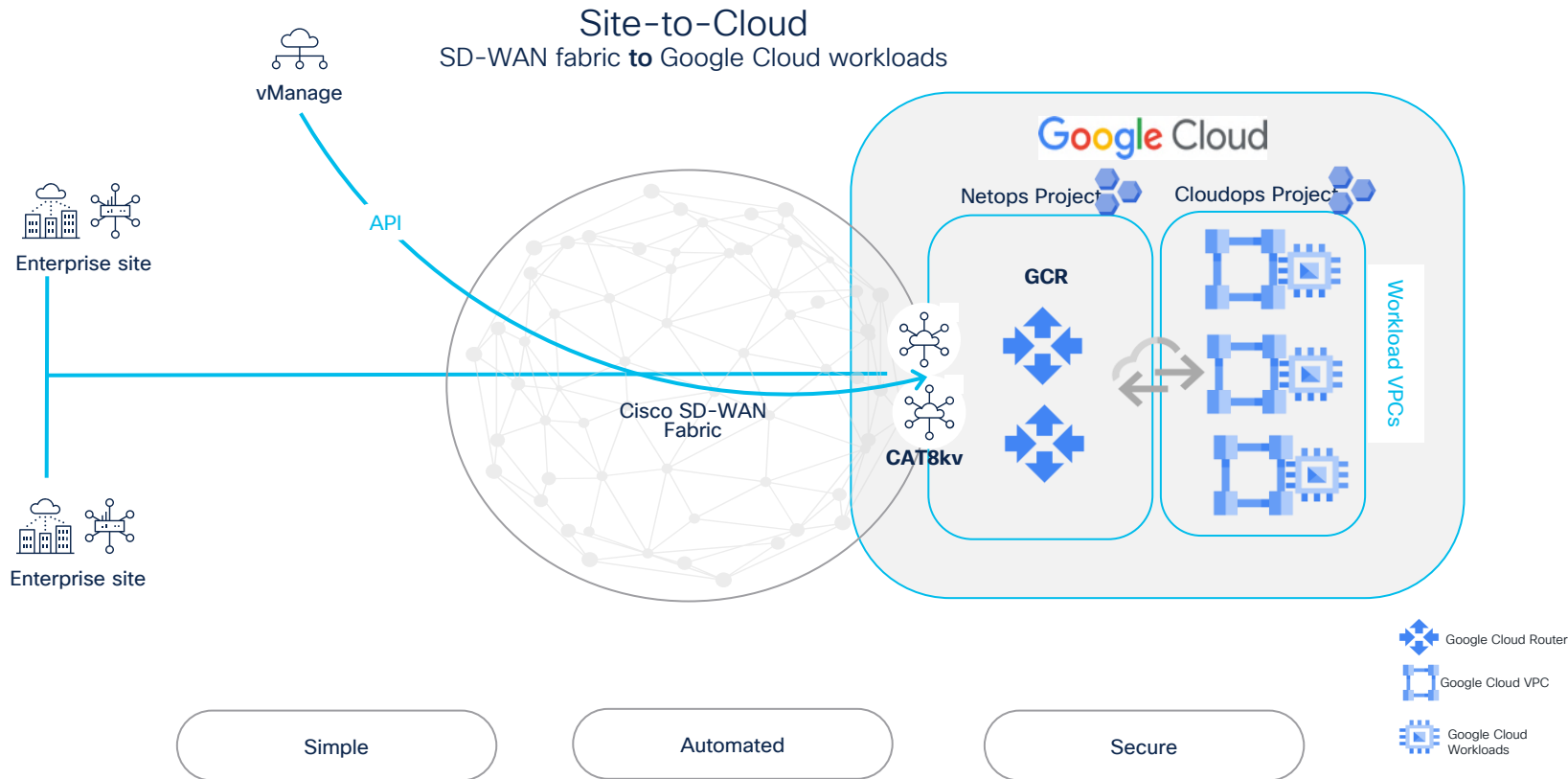
**Native SD-WAN integration** with major SD-WAN partners Cisco & others.

# Google NCC Integration & Top use cases

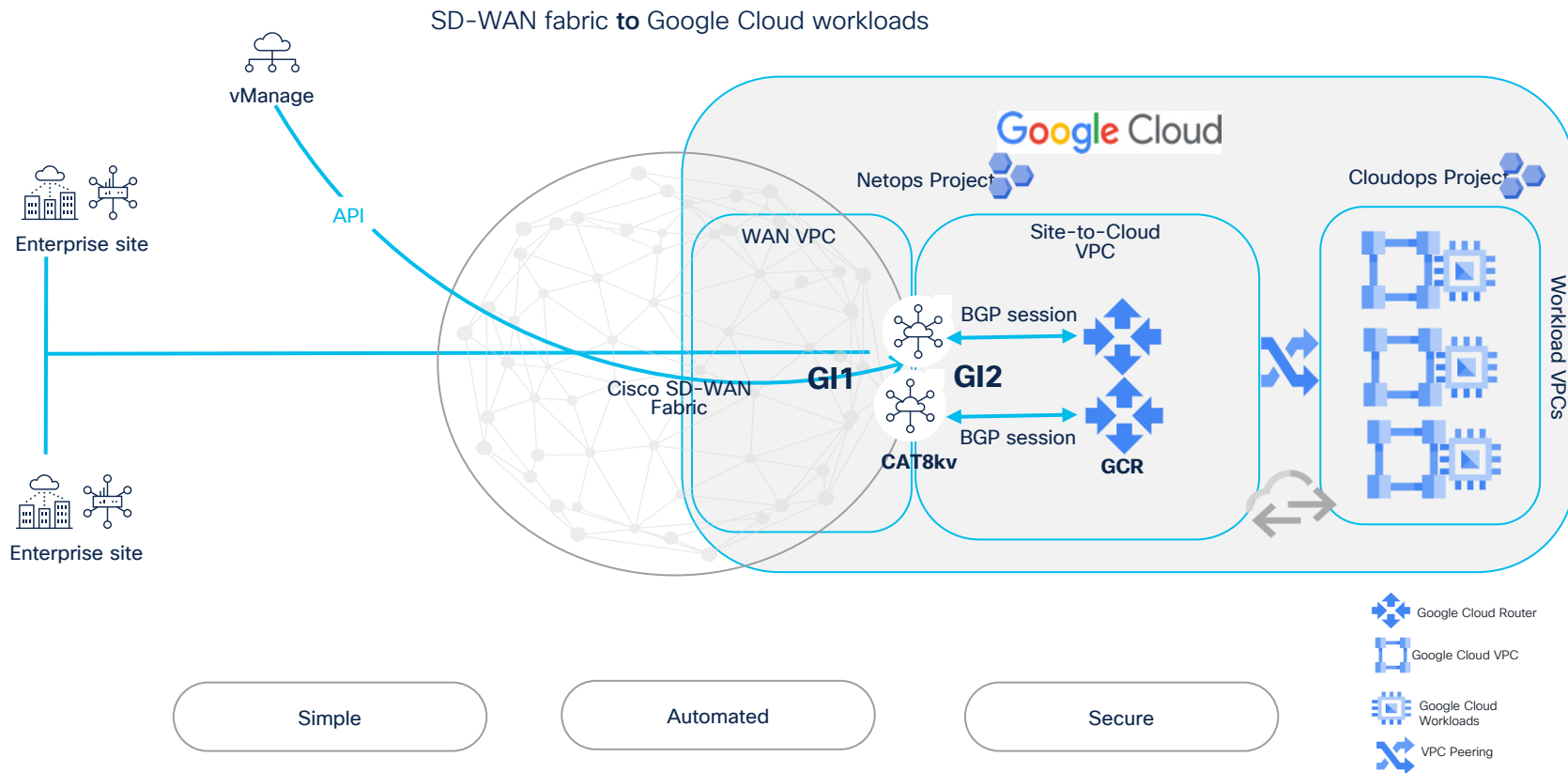
1. Site-to-Cloud
2. Site-to-Site
3. Cloud to Cloud



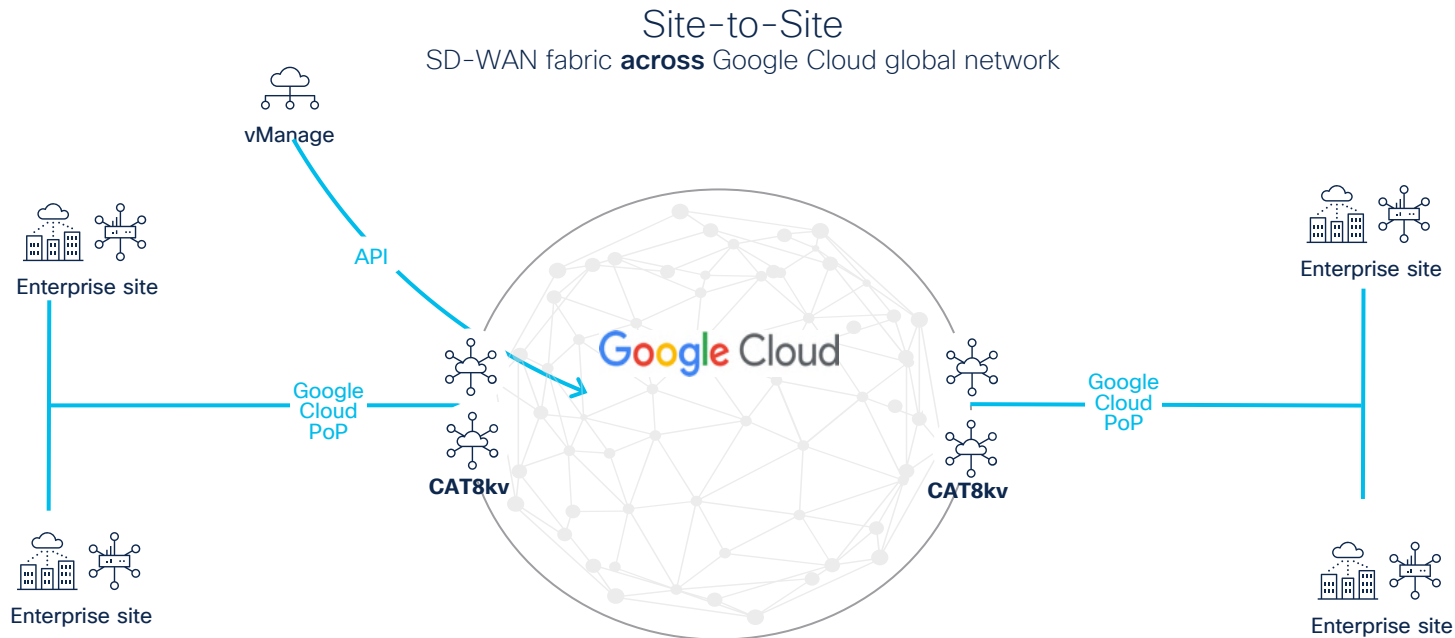
# Cisco SD-WAN Cloud Hub with Google Cloud



# Site-to-Cloud - Details



# Cisco SD-WAN Cloud Hub With Google Cloud



On-demand

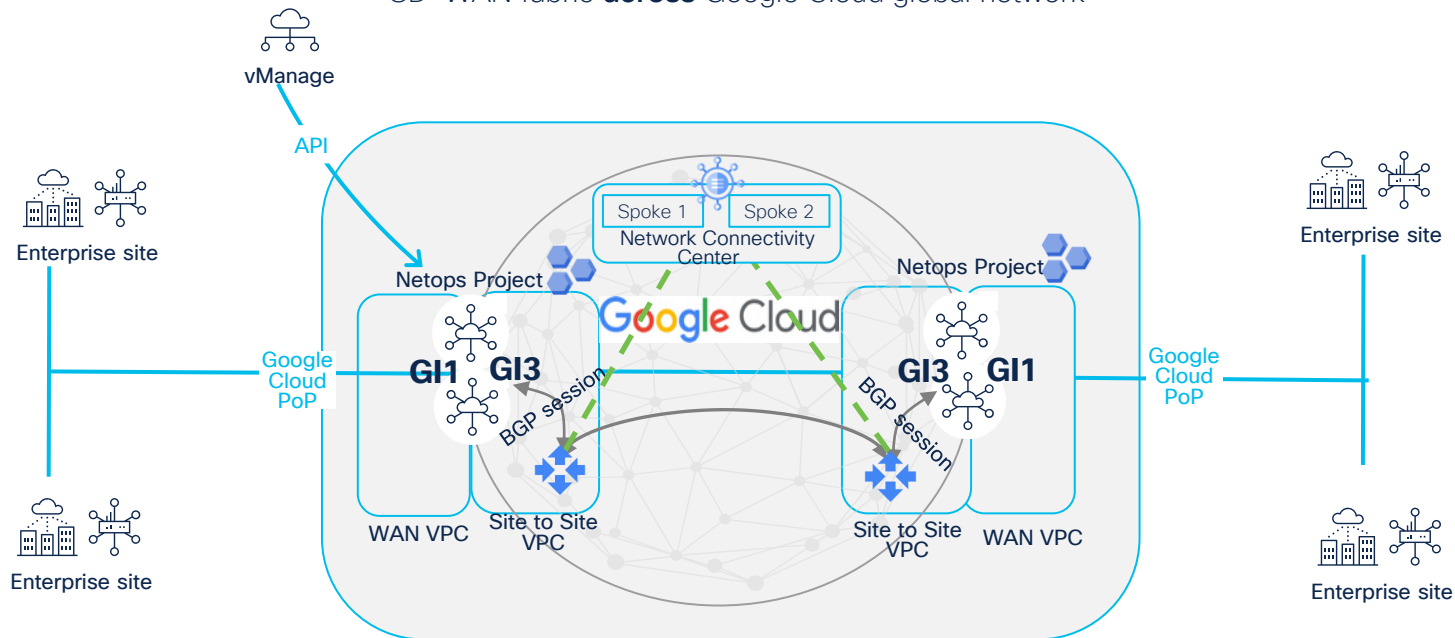
High performance

Global connectivity

# Site-to-Site- Details

- Control Policy
- Multi-Region Fabric

SD-WAN fabric **across** Google Cloud global network



On-demand

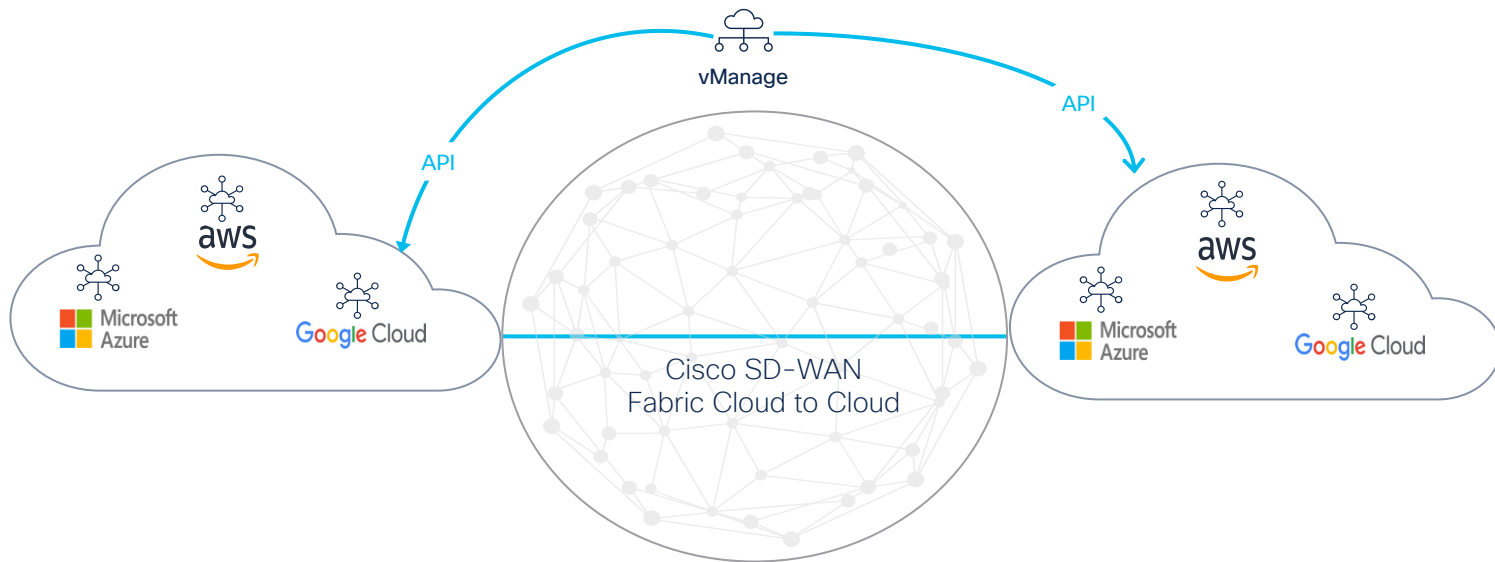
High performance

Global connectivity



# Cisco SD-WAN Cloud Hub With Google Cloud

Cloud to Cloud  
SD-WAN Fabric Between the Cloud



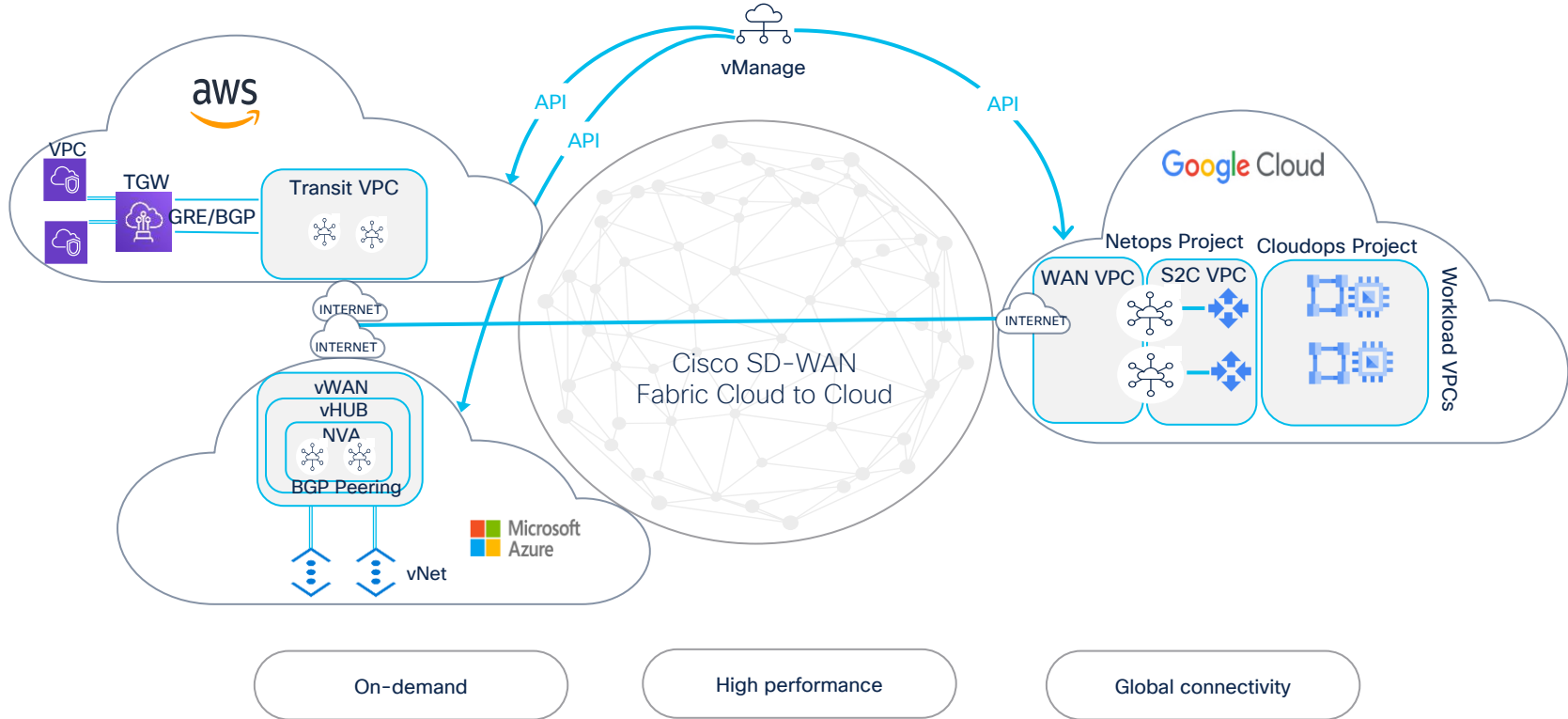
On-demand

High performance

Global connectivity

# Cloud to Cloud- Details

SD-WAN Fabric Between the Cloud

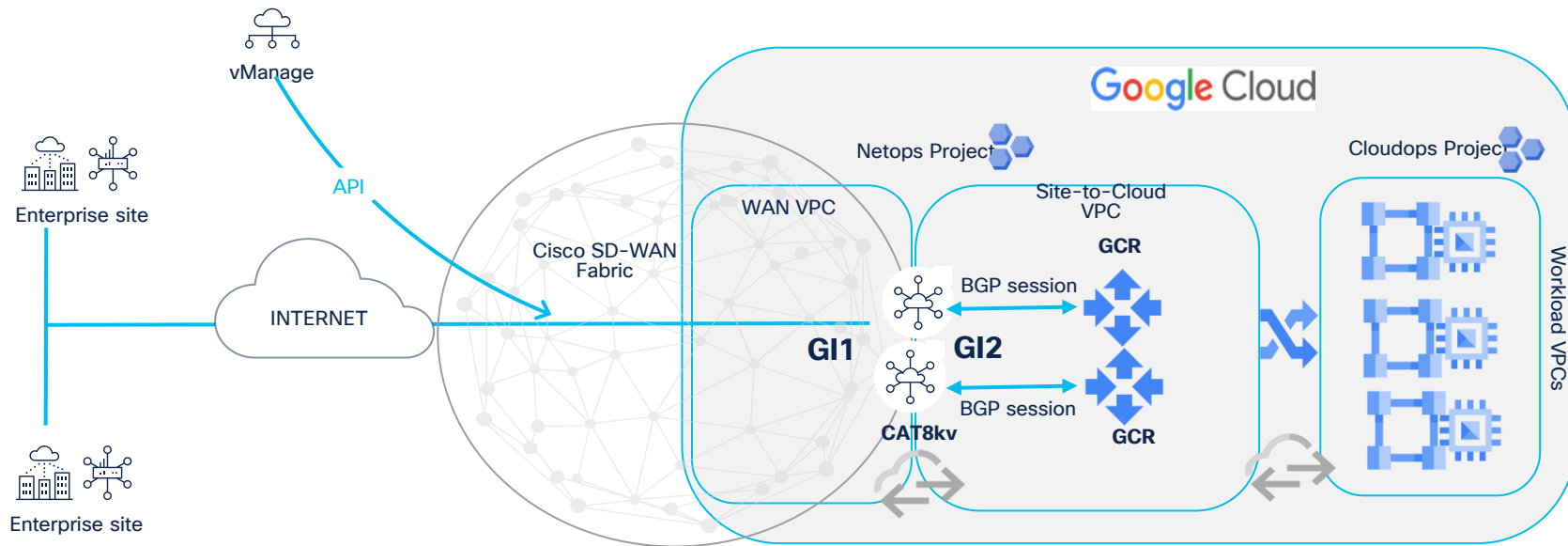




# Connectivity options

# Cisco SD-WAN Cloud Hub connectivity option: 1

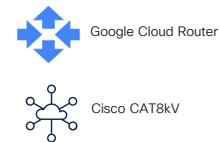
Connectivity over Internet



Simple

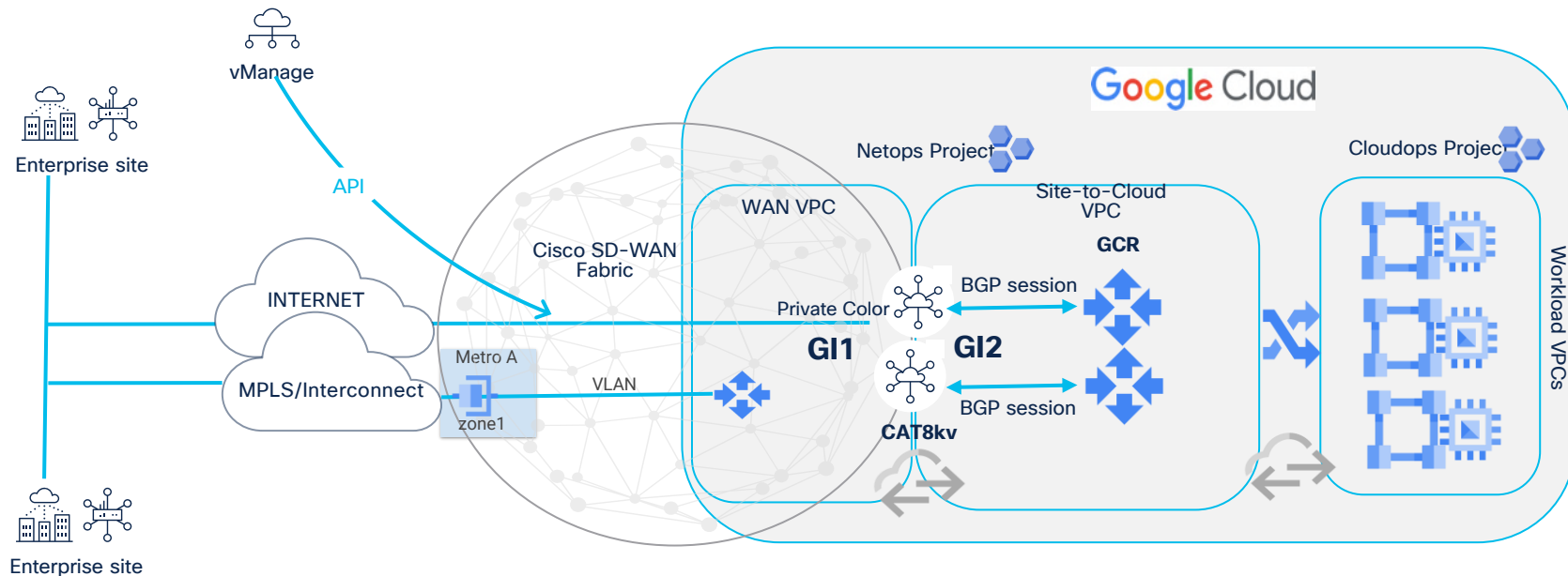
Automated

Secure



# Cisco SD-WAN Cloud Hub connectivity option: 2

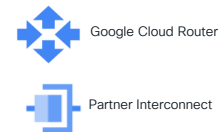
## Connectivity over Hybrid



Simple

Automated

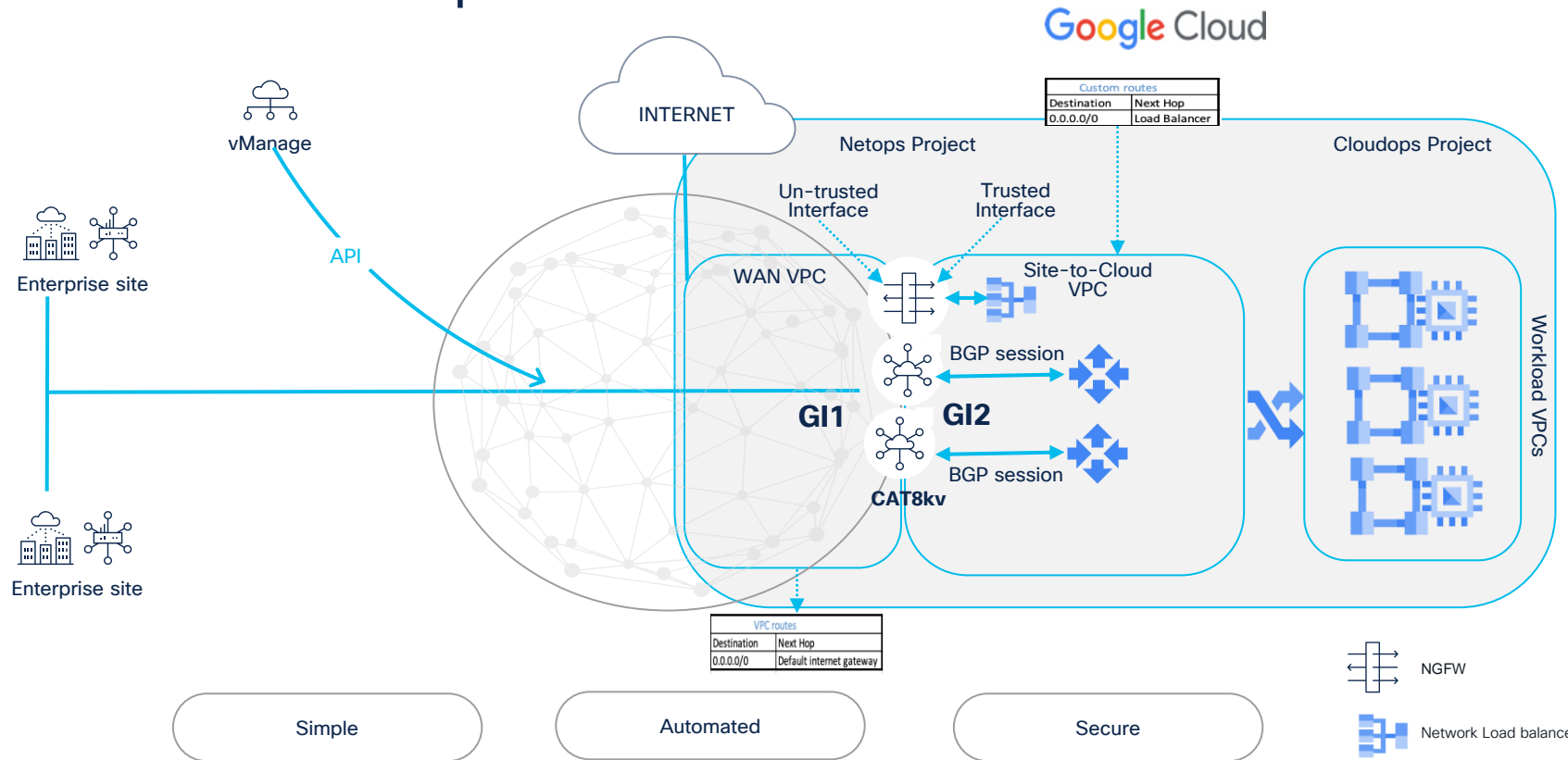
Secure



# Security Design Options

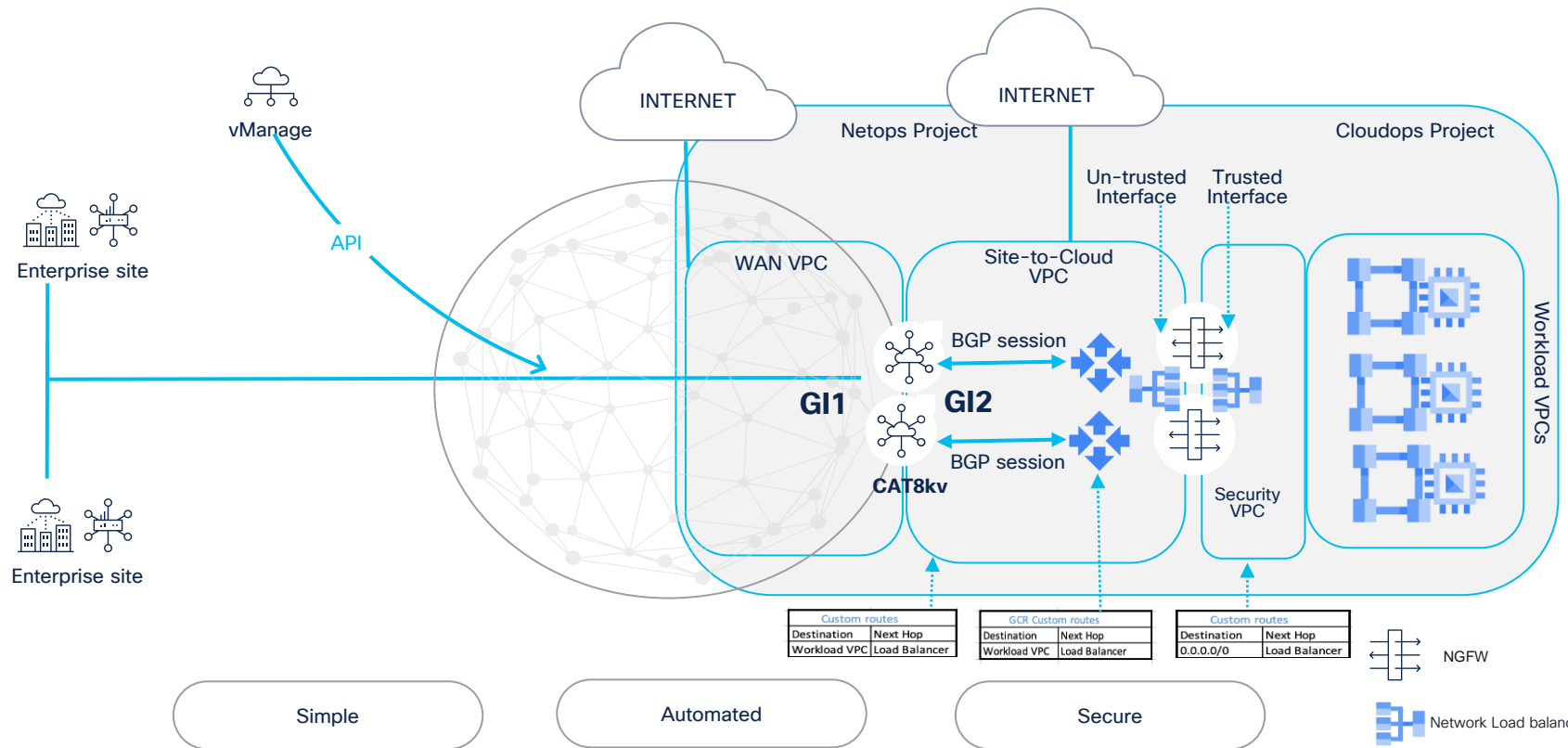


# Internet Traffic Inspection



# Full Traffic Inspection

Google Cloud



# Implementation Demo



# Initial parameters and Workflow

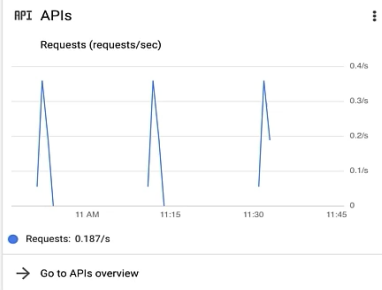
The screenshot shows the Google Cloud Platform dashboard for the project 'TSA-SDWAN-CISCO'. The left sidebar contains several sections: 'Project info' with details like Project name, number, and ID; 'Resources' listing services like BigQuery, SQL, Compute Engine, Storage, Cloud Functions, and App Engine; 'Trace' showing no data from the past 7 days; and 'Getting Started'. The main content area displays 'Project info' again, followed by 'Resources' and a 'Trace' section. A yellow circle highlights the 'Go to Compute Engine' link in the 'Resources' section.

## Cisco SD-WAN Cloud Hub Site-to-Cloud



Instance/cpu/utilization: 33.00%

→ Go to Compute Engine



Estimated charges  
For the billing period Jun 1 – 10, 2022  
USD \$27.54

Take a tour of billing

→ View detailed charges

Monitoring

Create my dashboard

Set up alerting policies

Create uptime checks

View all dashboards

→ Go to Monitoring

API Error Reporting

No sign of any errors. Have you set up Error Reporting?

→ Learn how to set up Error Reporting

Automated with Cisco vManage



# Cisco and Google- Better together



## Single pane of glass automation

Time to value (with fast deployment)  
full network stack automation  
(automate overlay+underlay via vManage)

Centralized control from a single  
unified view with real-time monitoring  
via vManage

Simplified connectivity to Google to  
provides decentralize access



## Service-health based

Automate SD-WAN policy for custom  
applications in multi-cloud based on  
application profile

Improved application performance

SD-WAN path selection based on  
network and service telemetry data  
exchange



**BRKENT-3412**



## Secure multicloud networking

Consistent Security Policies – Secure  
segmentation and common policy  
framework across on-prem and cloud

Reduced network risks  
(with private backbone connectivity)

Strong security posture  
(end-to-end encryption and  
segmentation)

# 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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(CLCs) are prepaid training vouchers redeemed directly with Cisco.



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- Visit the Cisco Showcase for related demos
- Book your one-on-one Meet the Engineer meeting
- Attend the interactive education with DevNet, Capture the Flag, and Walk-in Labs
- Visit the On-Demand Library for more sessions at [www.CiscoLive.com/on-demand](https://www.CiscoLive.com/on-demand)



The bridge to possible

# Thank you

CISCO *Live!*



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