Let's go

The bridge to possible

Unify Multicloud networking with Infrastructure security

With the principle of Catalyst SD-WAN

Prashant Tripathi, Principal/Chief Architect Cisco SD-WAN & Multi-Cloud

@prashant_tri

BRKENT-2702

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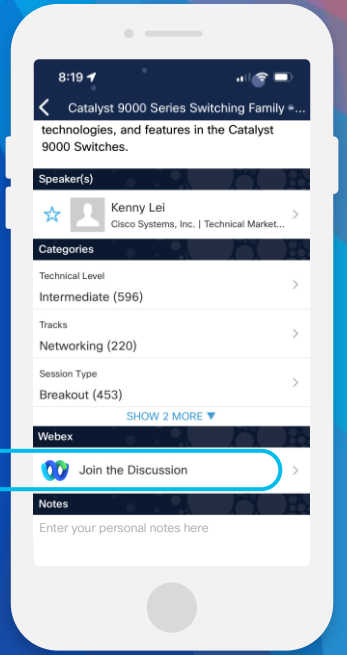

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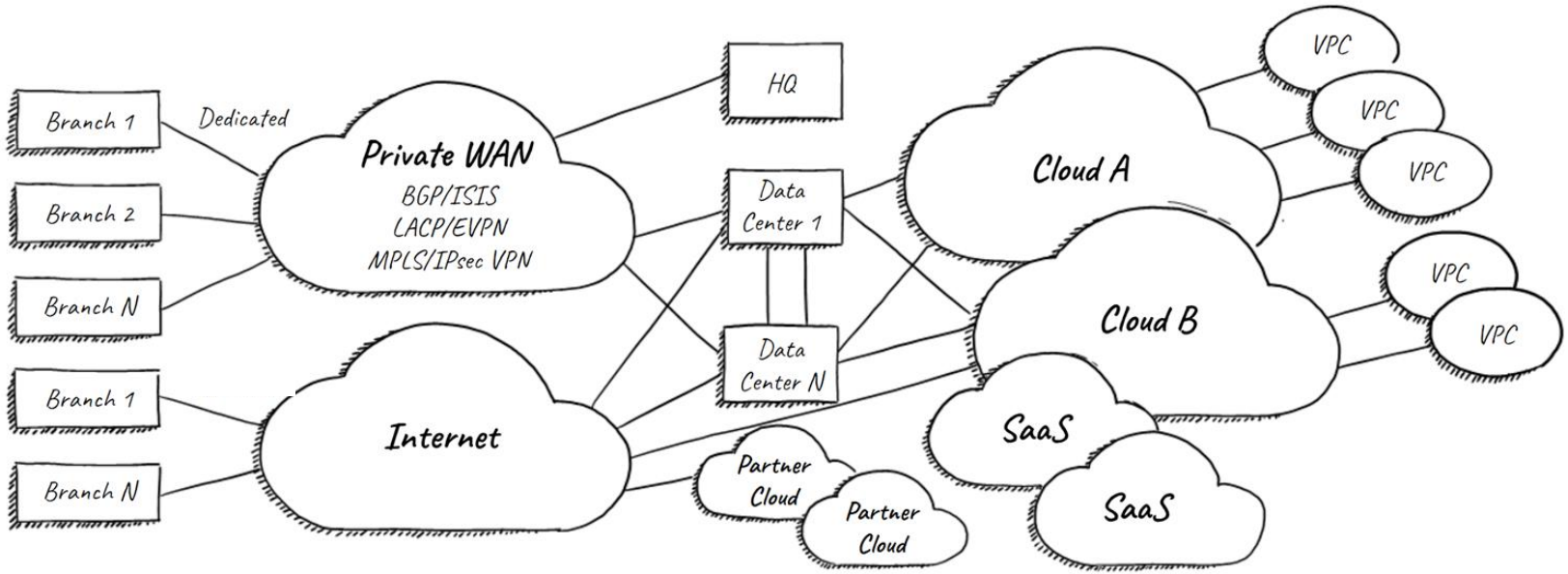
Agenda

- Infrastructure transformation
- Normalizing operations across Multi-Cloud
- SD-WAN Multi-Cloud Integration & Use Cases
  - AWS
  - Azure
  - GCP
- Network security insertion

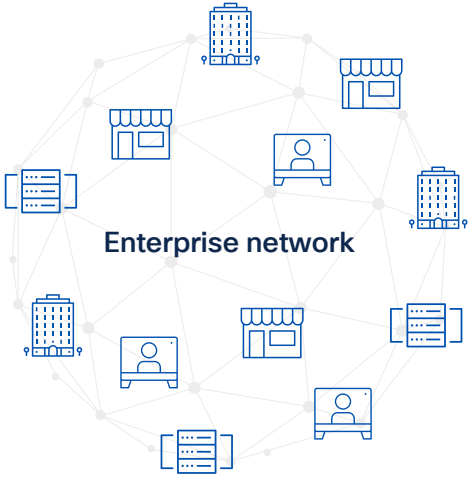
Managing enterprise networks is increasingly complex

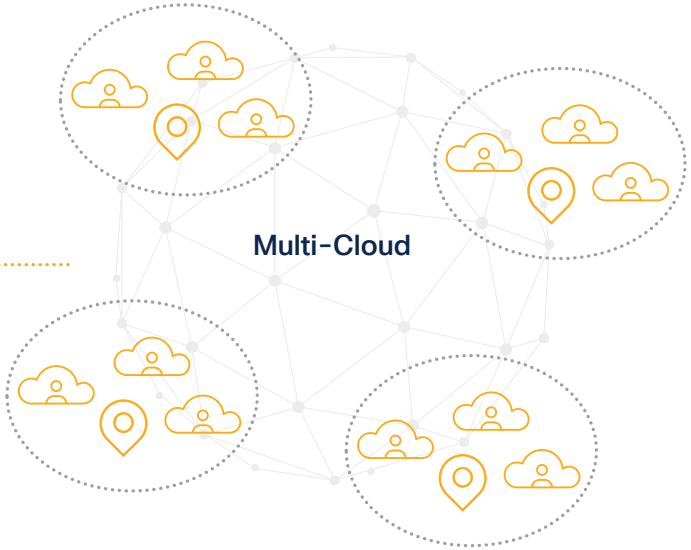


Months to build topology & capacity

Multiple control, data & management planes

Complex hybrid & multi-cloud networks

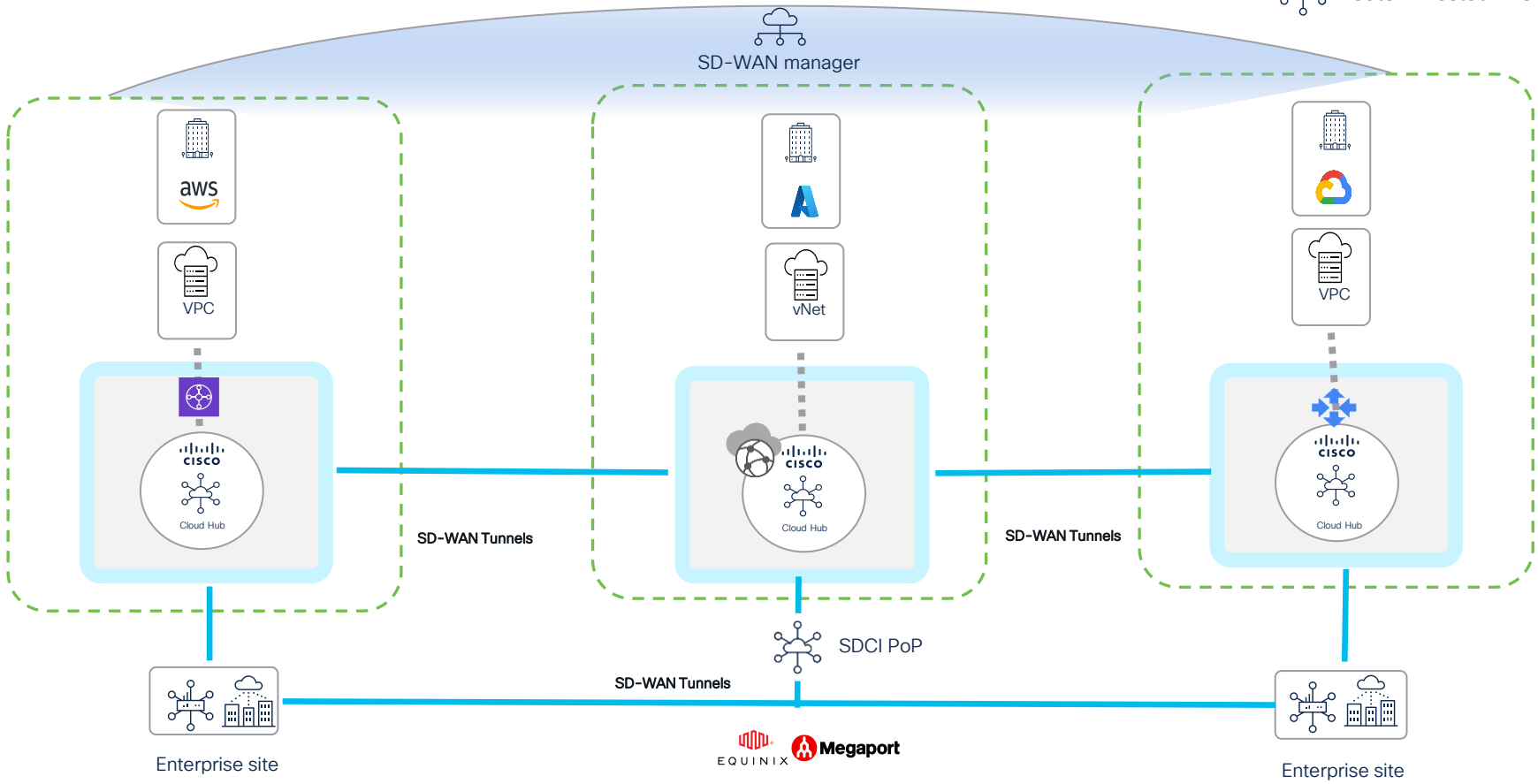




Normalizing operations

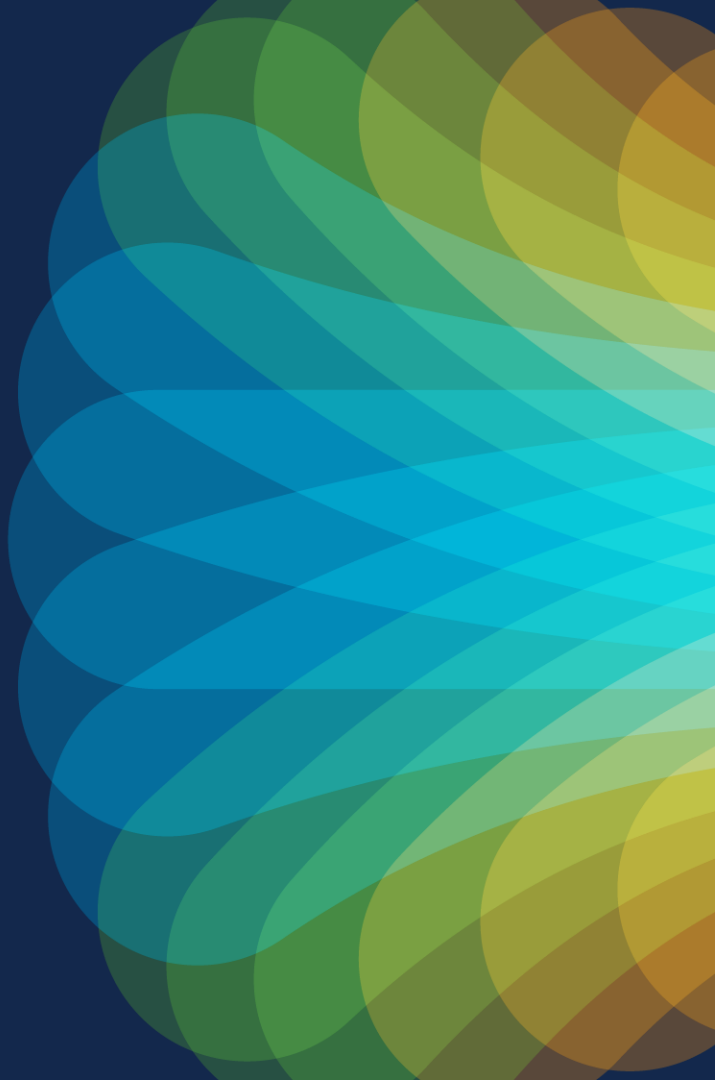
Across Multi-Cloud

Unifying Multi-Cloud Connectivity



Cisco SD-WAN Multi-Cloud

Integrations & Use Cases



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Cisco SD-WAN Cloud Hub- Use Cases

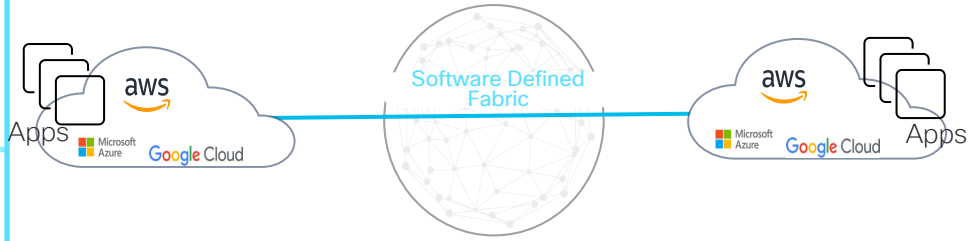
= Cisco SD-WAN virtual router hosted at Cloud Service Provider POP

= Cisco SD-WAN router on-premises

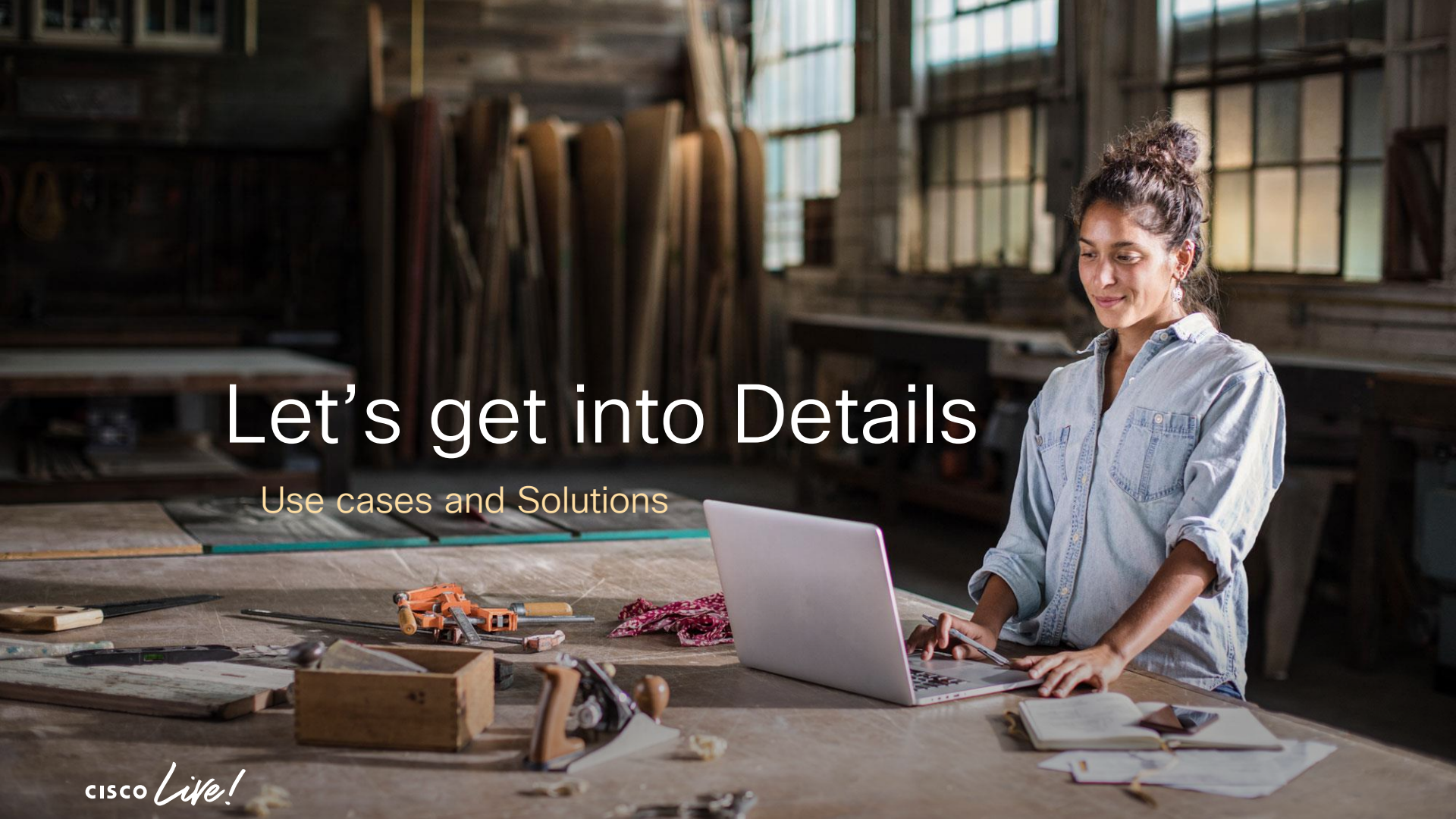
Enterprise Site to Cloud

Enterprise Site to Enterprise Site

Cloud to Cloud/Inter-Cloud



Cisco SD-WAN simplifying connectivity with fabric extension to cloud providers, it is building a programable site-to-cloud, Region to Region, site-to-site and cloud to cloud connectivity using cloud providers Native constructs and backbone


Let’s get into Details
Use cases and Solutions
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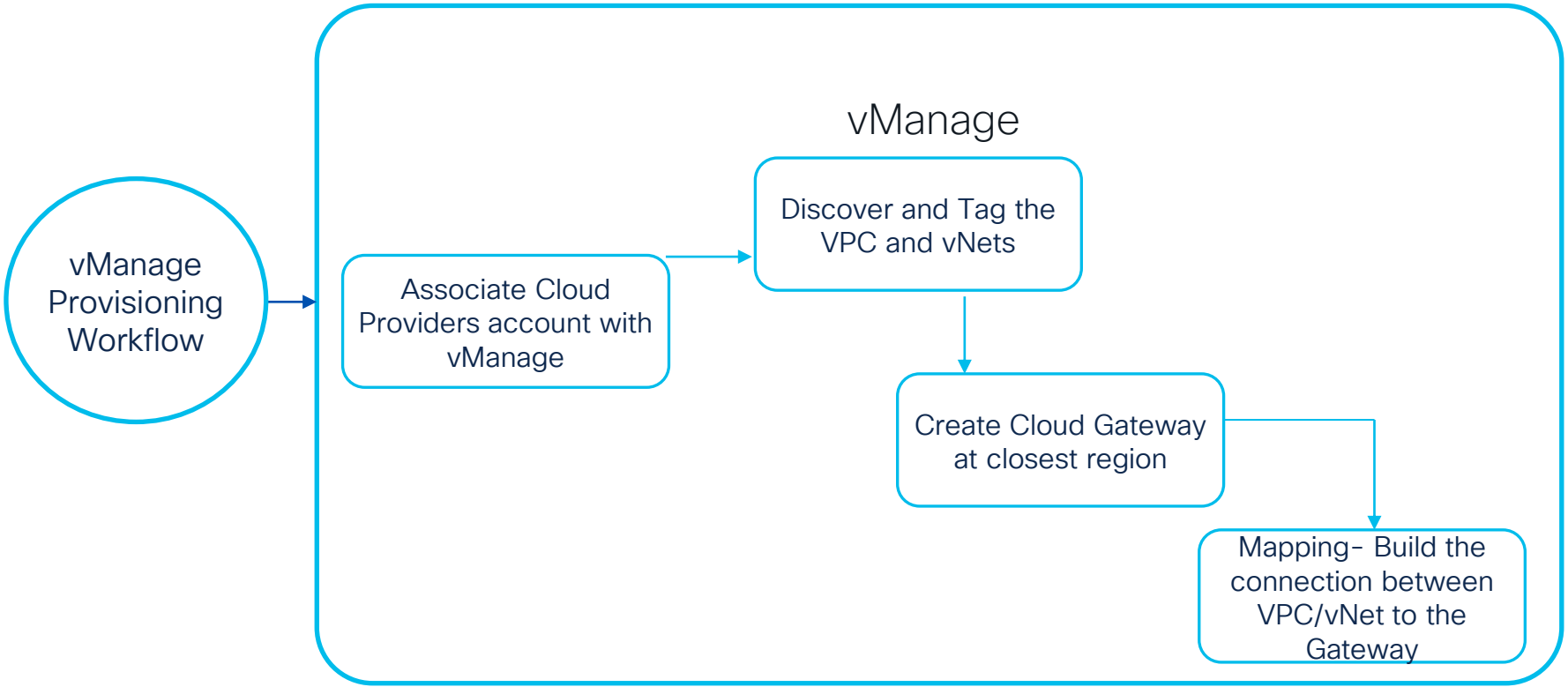
Just a few steps to connect Multi-cloud

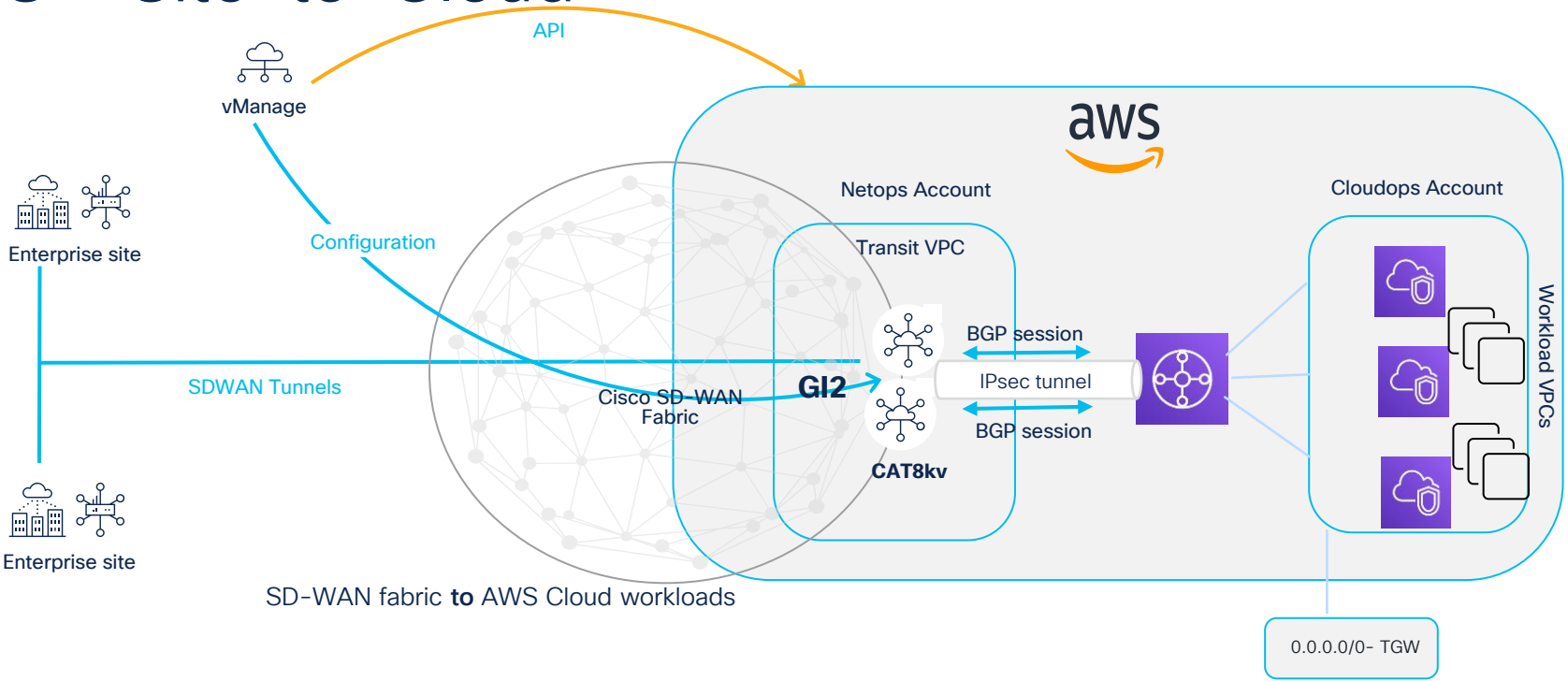


Integration and connectivity to AWS

With TGW

SD-WAN Native Integration using Ike IPSEC between c8kvs within Transit VPC and Transit Gateway

AWS - Site-to-Cloud

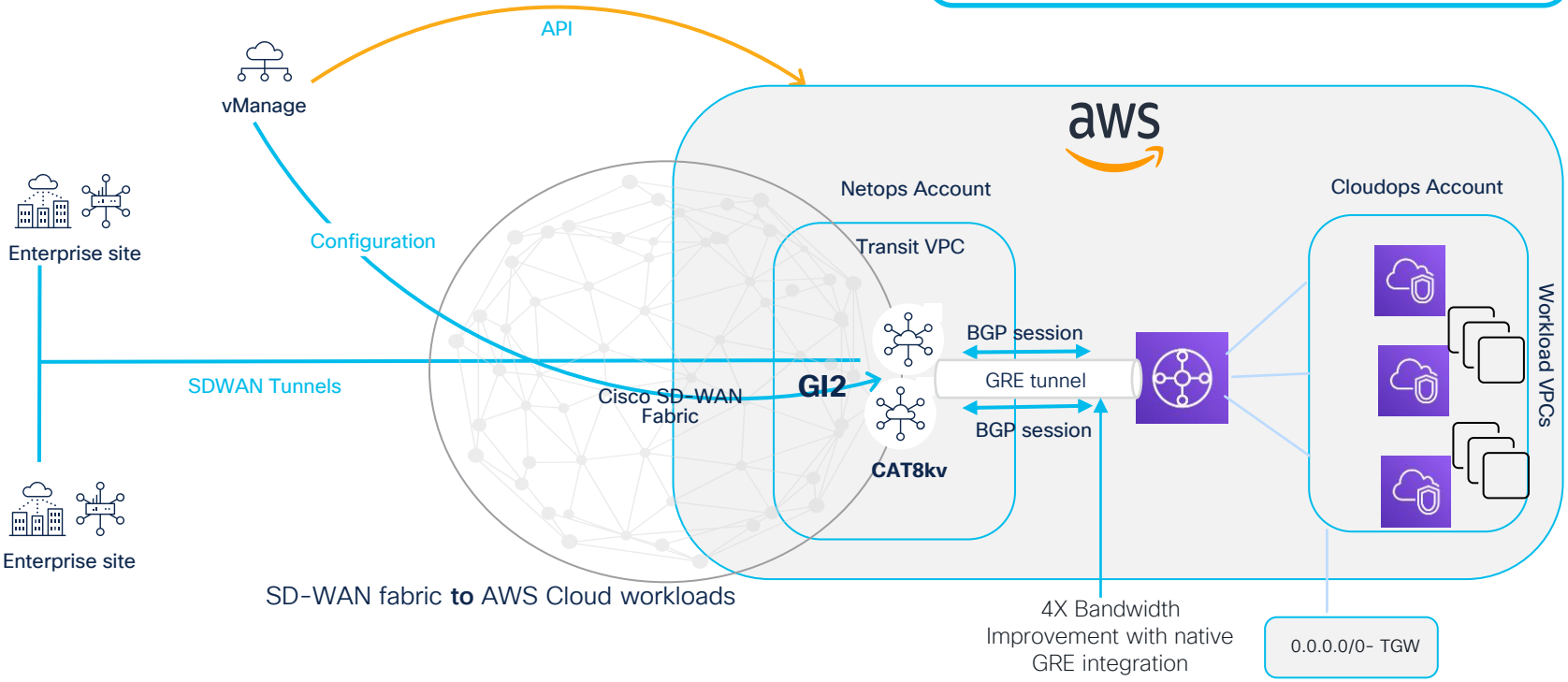


SD-WAN fabric **to** AWS Cloud workloads

Simple | Automated | Secure

AWS - Site-to-Cloud

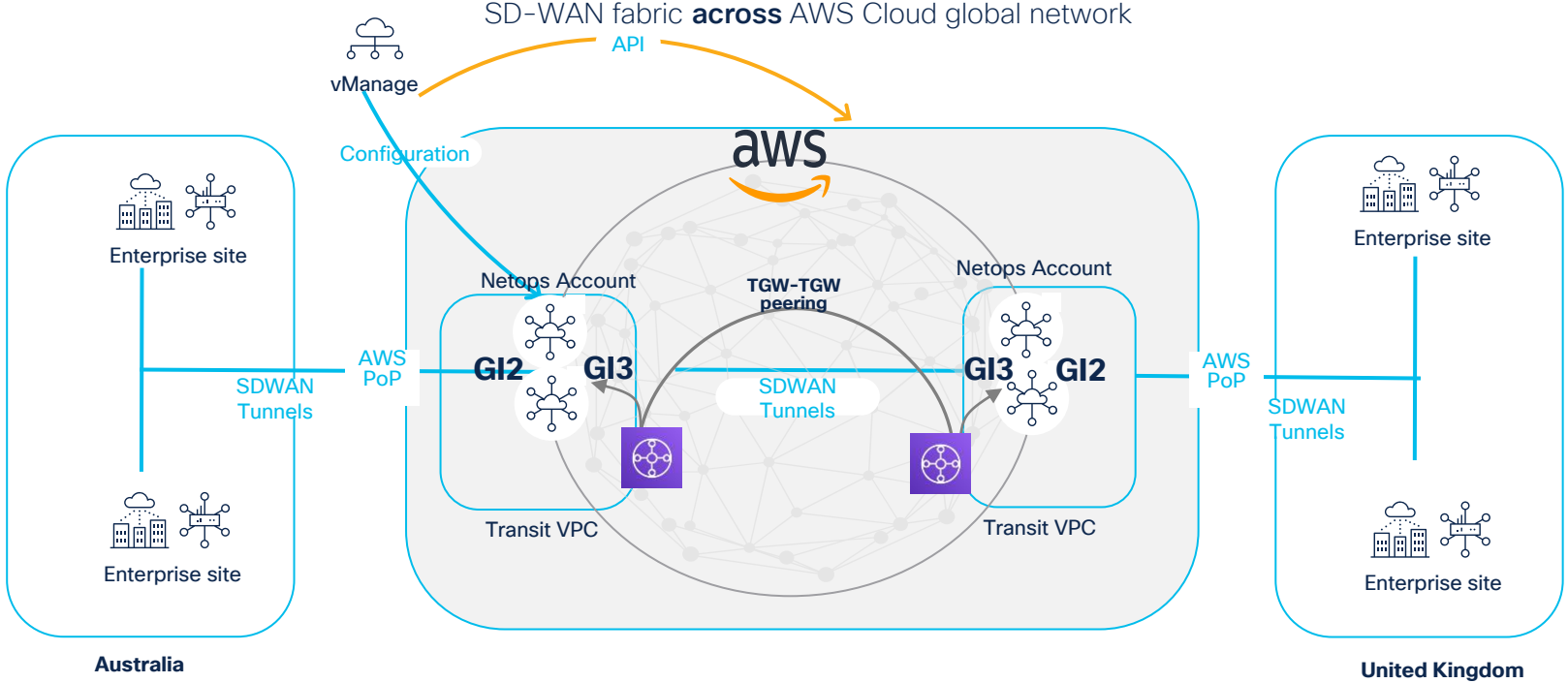
SD-WAN Native Integration using **GRE** (TGW Connect) between c8kvs within Transit VPC and Transit Gateway



TGW-TGW peering to build Backbone. Control policy or Multi region Fabric required for traffic redirection

AWS - Site-to-Site

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



On-demand

High performance

Global connectivity

Integration and connectivity to AWS

With Cloud WAN

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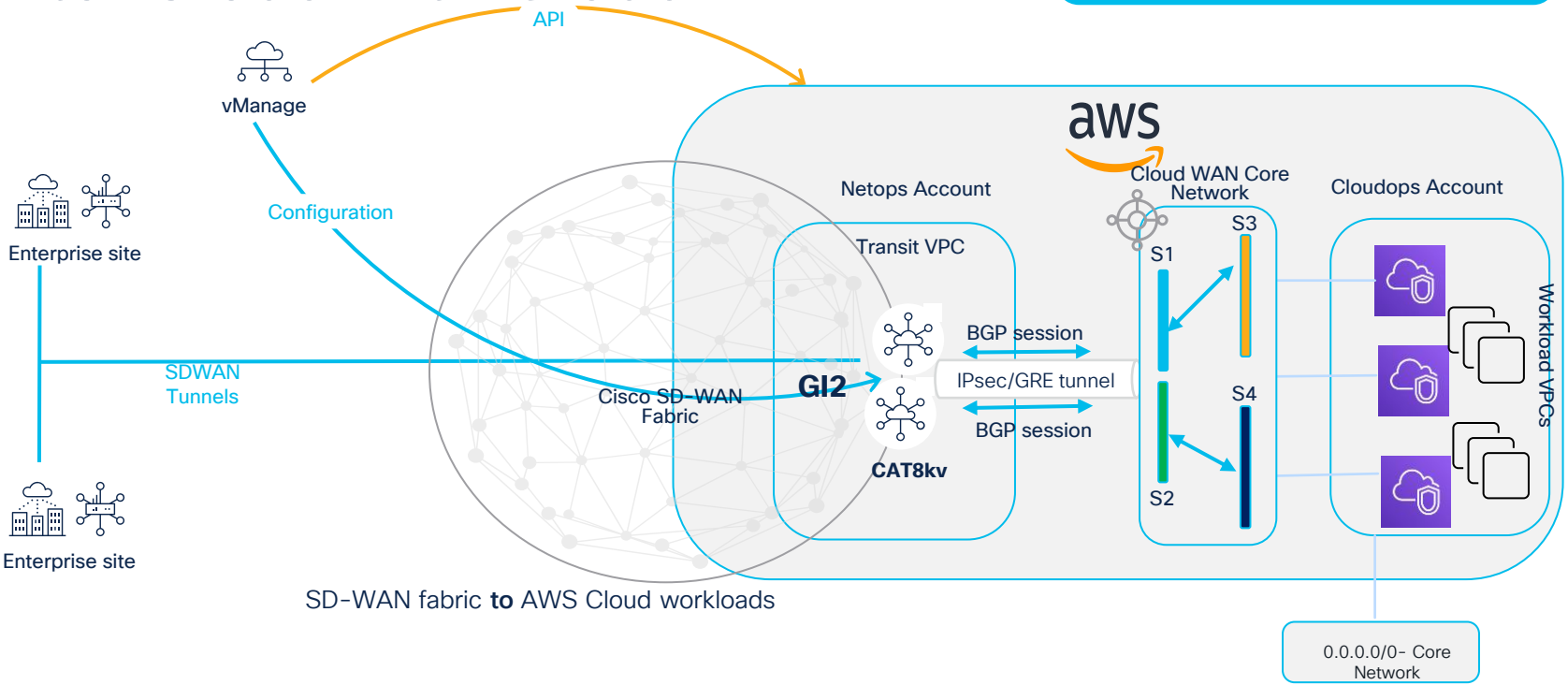
Site-to-Cloud with Cloud WAN

SD-WAN Native Integration using **Ike IPSEC or CONNECT (GRE)** between C8Kvs and Cloud WAN Segments.

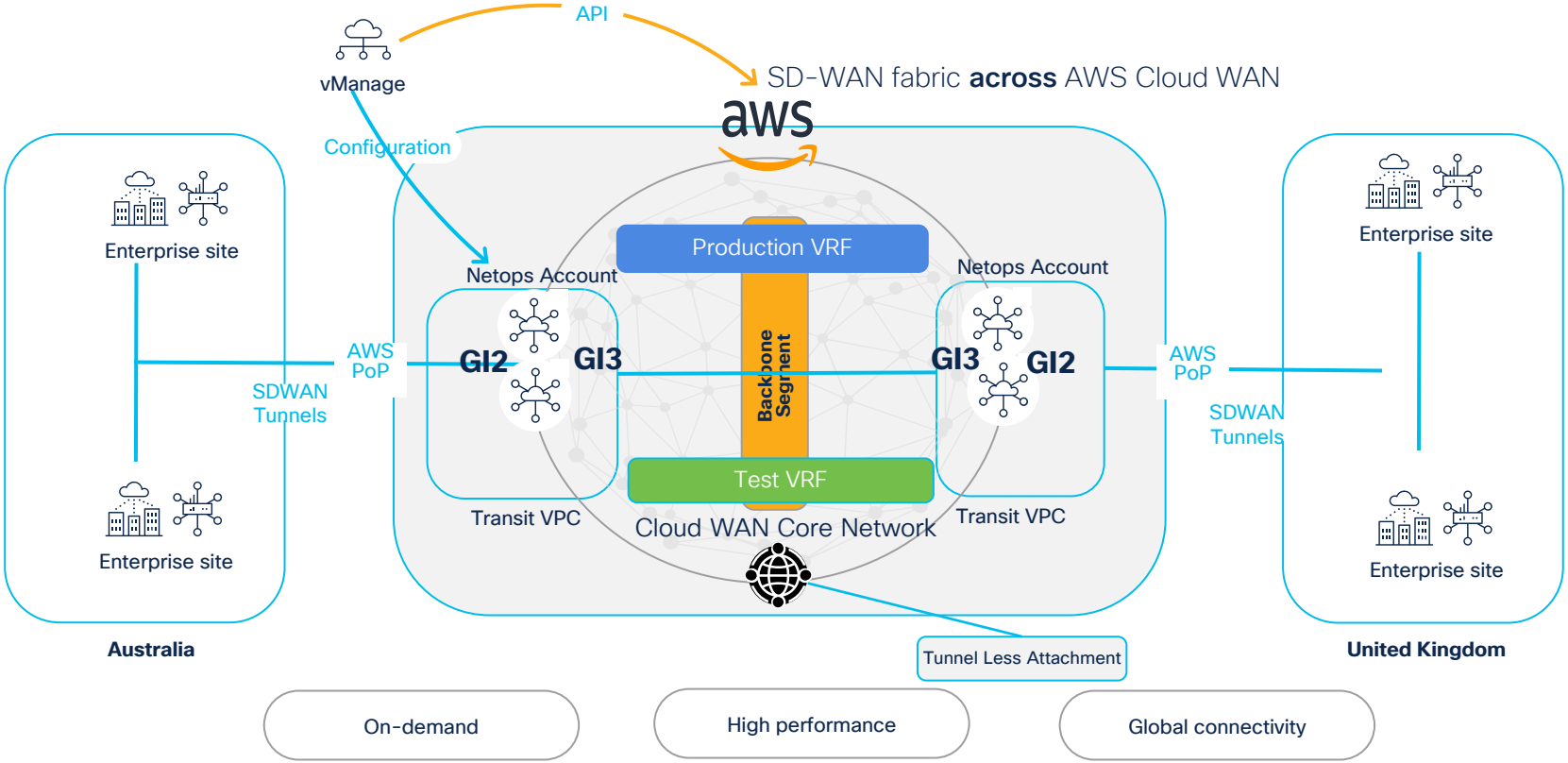


SD-WAN fabric **to** AWS Cloud workloads

Simple | Automated | Secure

Site-to-Site with Cloud WAN

High performance dynamic architecture that is uniquely co-innovated by Cisco and AWS

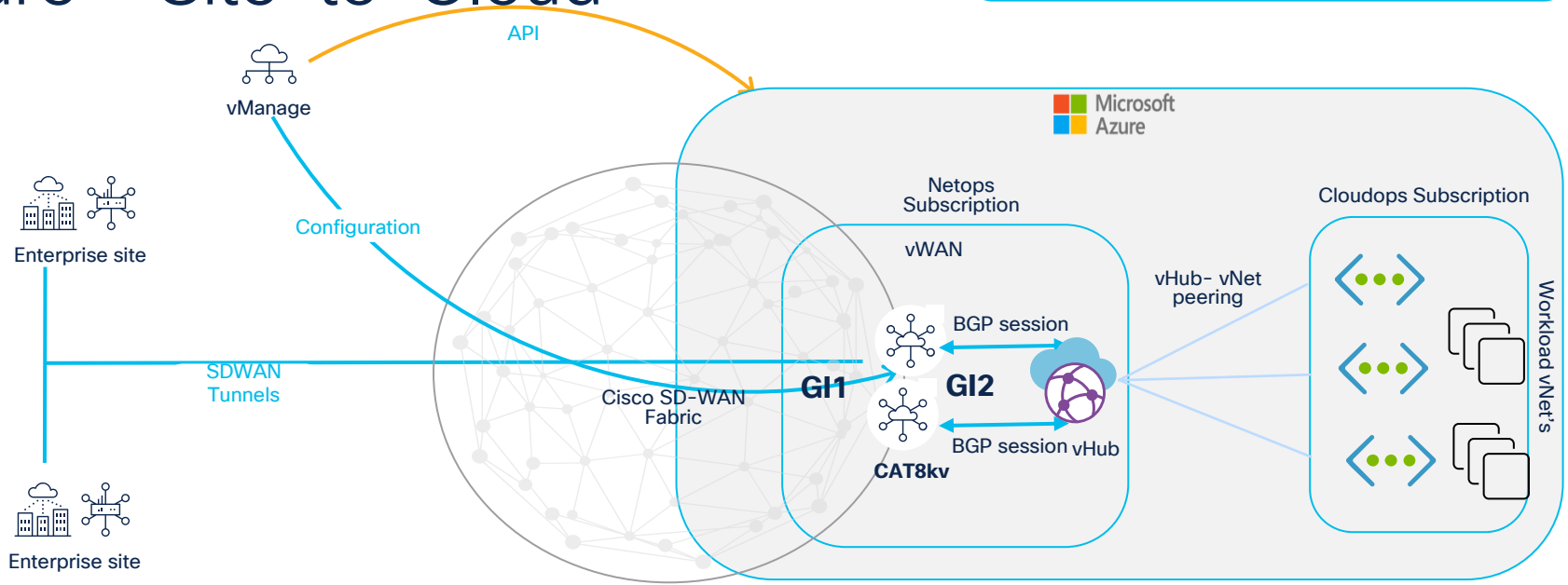


Integration and connectivity to Azure Cloud

vWAN/vHUB

CAT8k Network virtual appliances are hosted in vHub, running BGP to vHub control plane to learn vNet mappings

Azure - Site-to-Cloud



SD-WAN fabric **to** Azure Cloud workloads

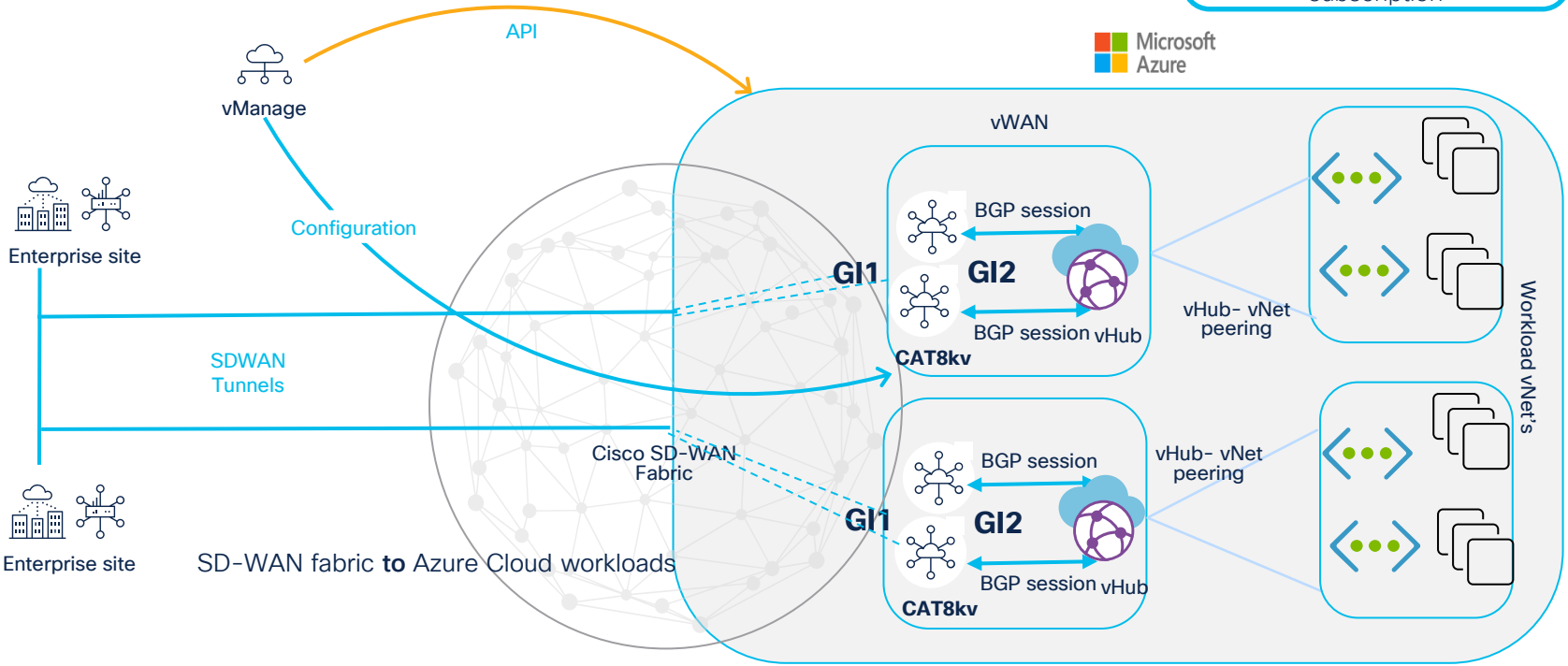
Simple

Automated

Secure

Azure - Site-to-Cloud with Multi vHUBs

CAT8k Network virtual appliances are hosted in Multiple vHub withing the same Azure Region and subscription

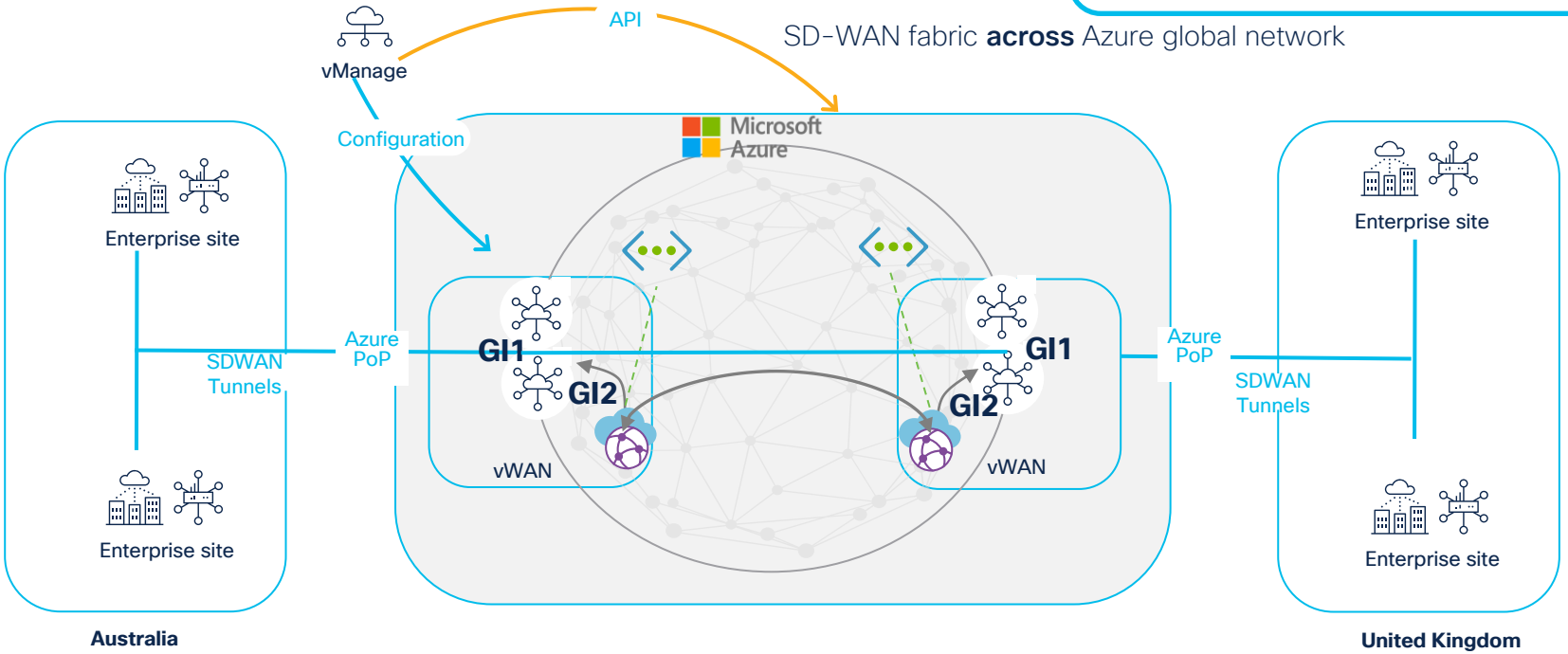


Simple | Automated | Secure

Azure - Site-to-Site

SDWAN tunnels with Azure Public IPs on NVAs go through Azure Backbone, **Azure vHub to vHub used for Intra-Vnet traffic.** Control policy or Multi region Fabric required for traffic redirection

SD-WAN fabric **across** Azure global network



On-demand

High performance

Global connectivity

Integration and connectivity to GCP

Network Connectivity Center

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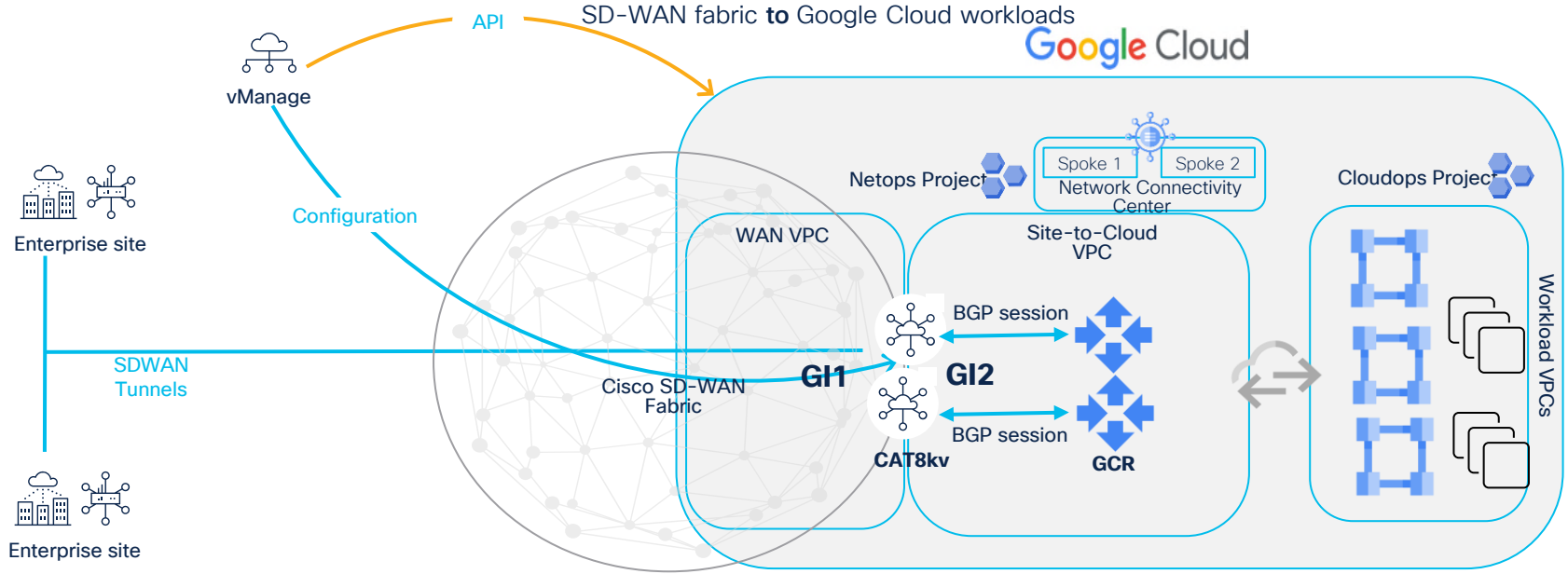
Google Cloud - Site-to-Cloud

Cisco SD-WAN Cloud Hub will be hosted on Google cloud , it runs BGP from service VPN to Google cloud routers to learn and advertise routes



Simple

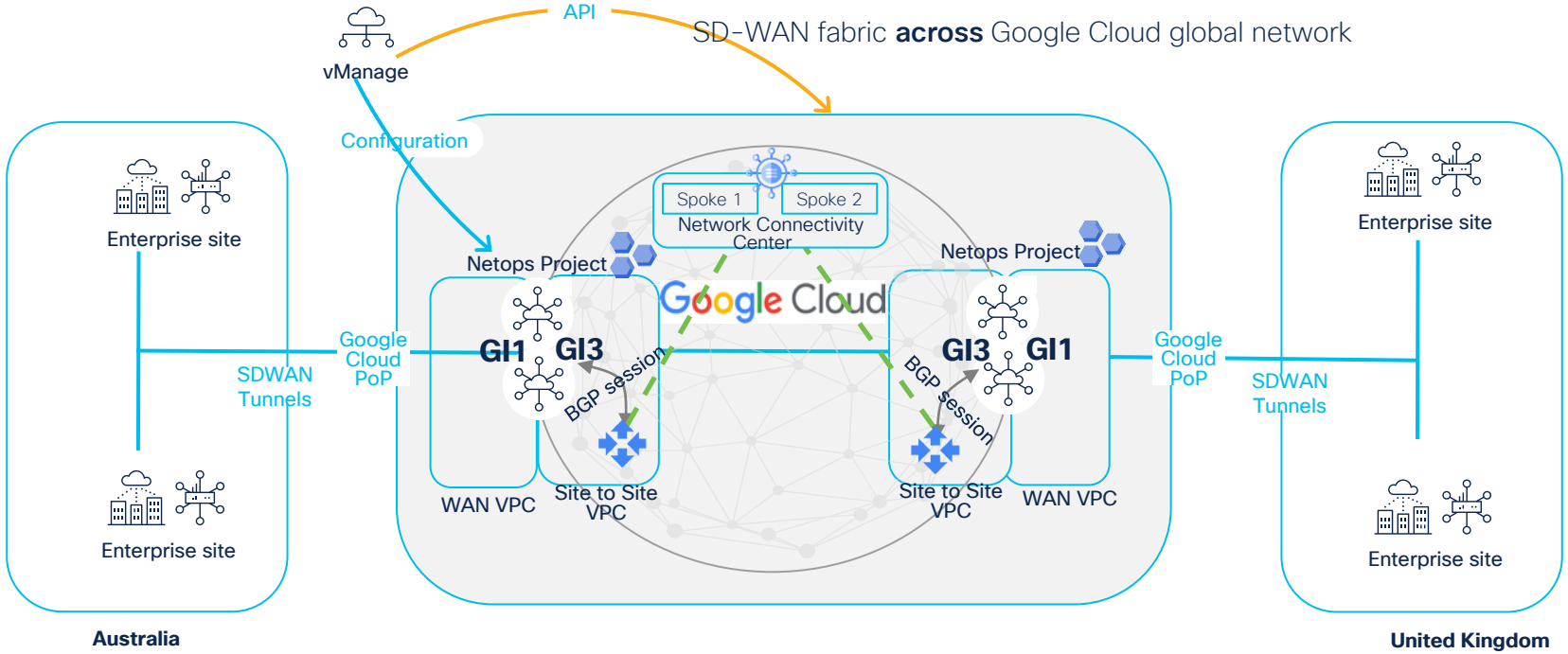
Automated

Secure

Google Cloud Router

Google Cloud - Site-to-Site

SD-WAN will leverage cloud service provider's backbone (Google NCC) to extend SD-WAN fabric from any site to Site, Control policy or Multi region Fabric required for traffic redirection



On-demand

High performance

Global connectivity

Google Cloud Router


High level Multicloud
User Interface view
SD-WAN Manager
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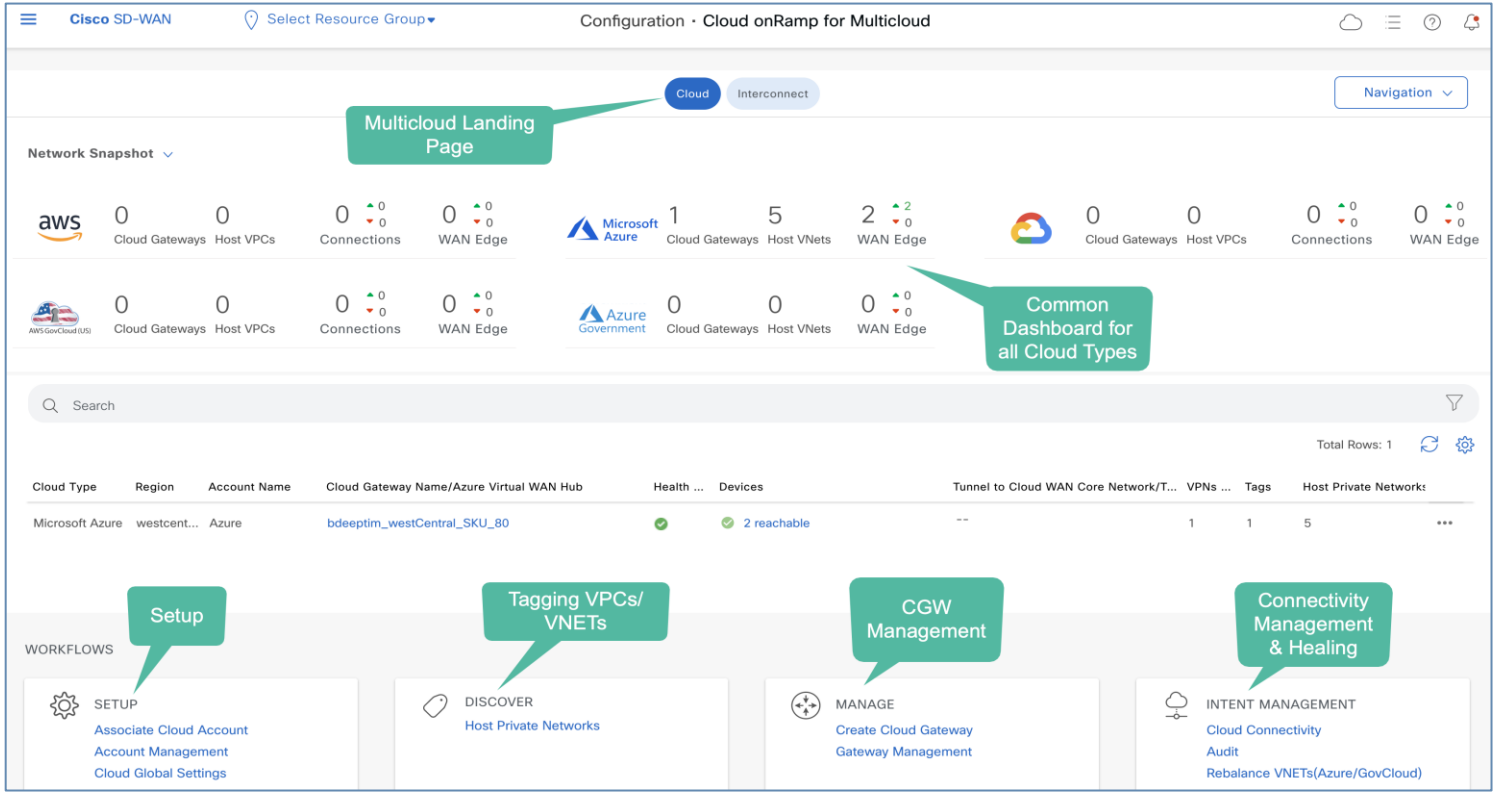
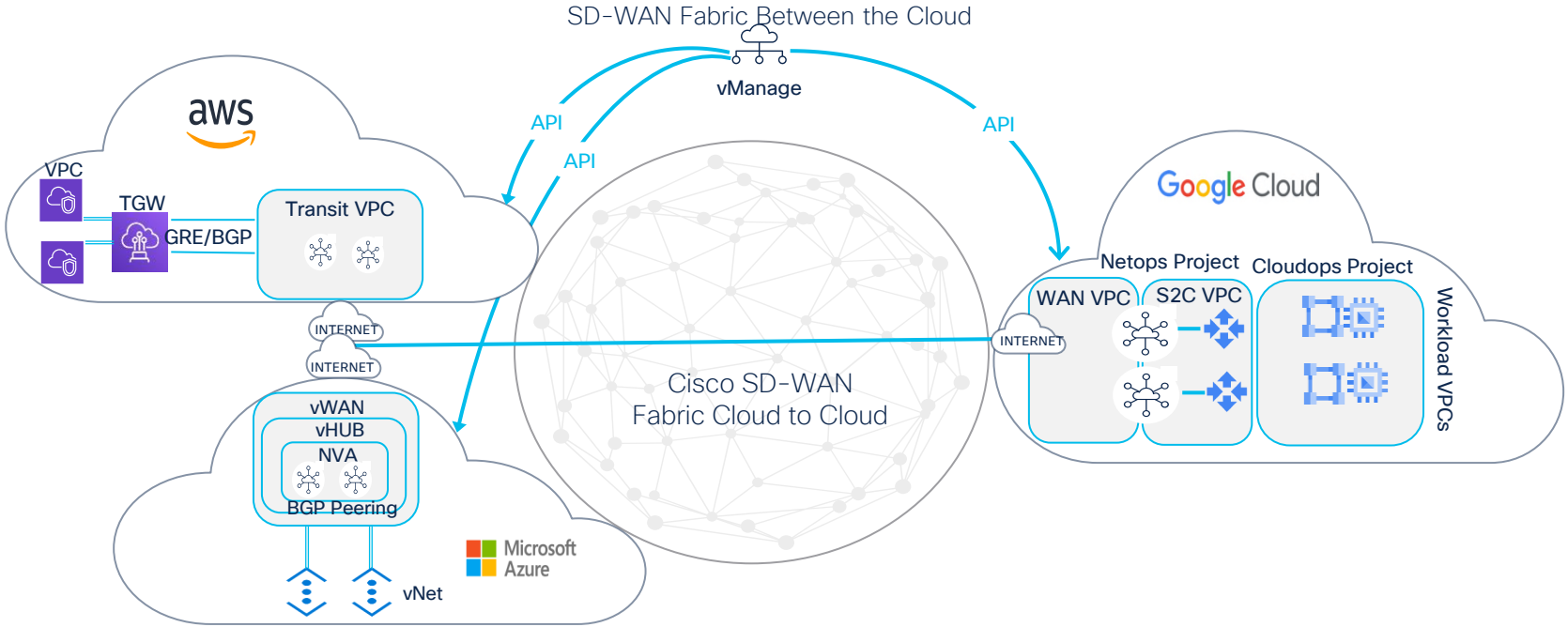
Dashboard

A Unified Dashboard to manage and monitor all Cloud connectivity

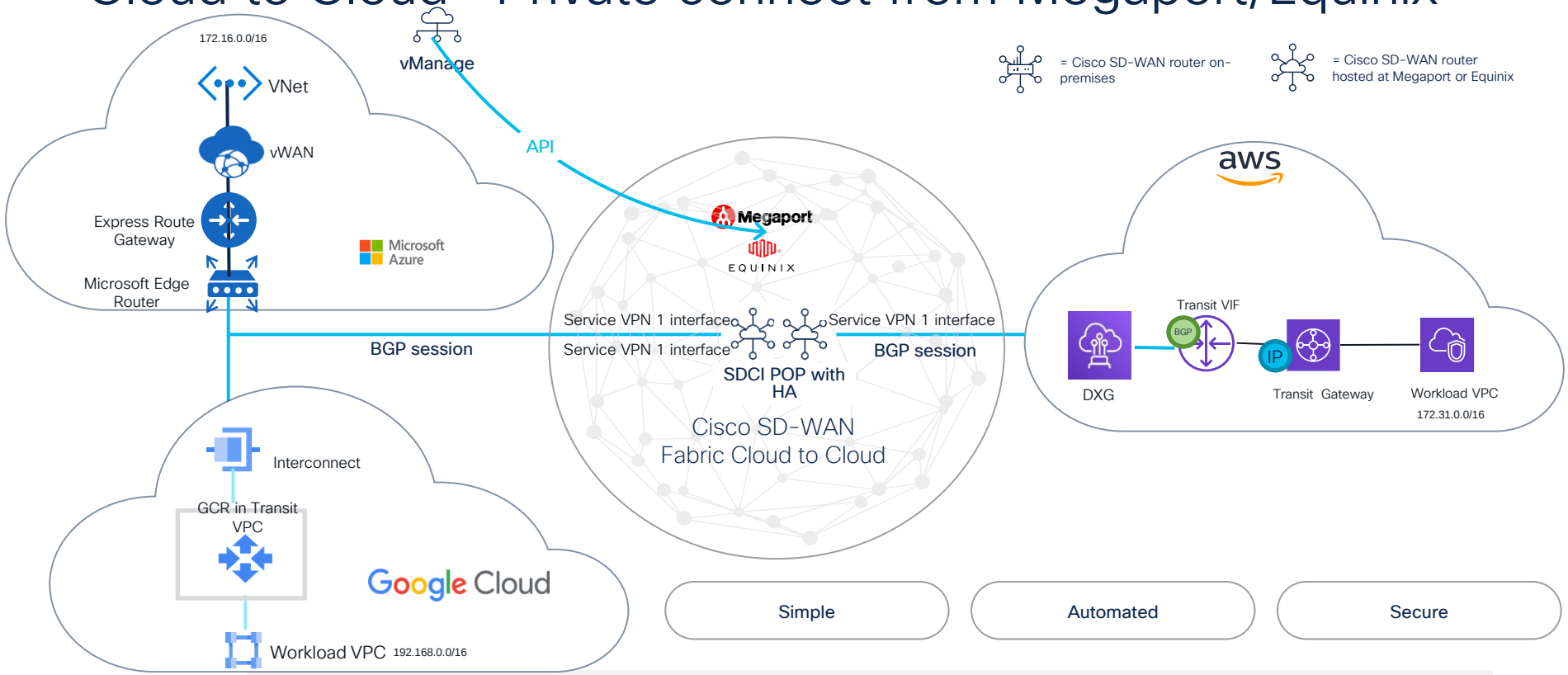


Cloud to Cloud Connectivity

Cloud to Cloud – Over Internet

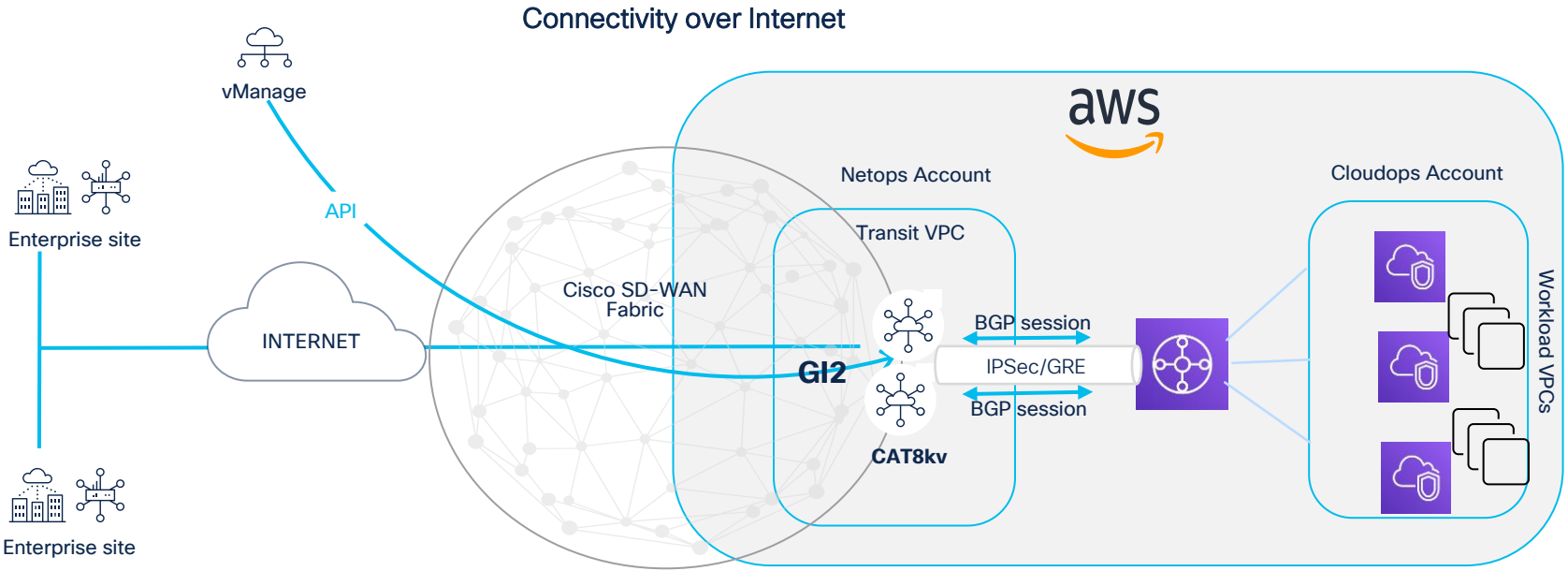


Cloud to Cloud– Private connect from Megaport/Equinix



Transport Connectivity options

On-Prem to AWS connectivity - Over single Transport

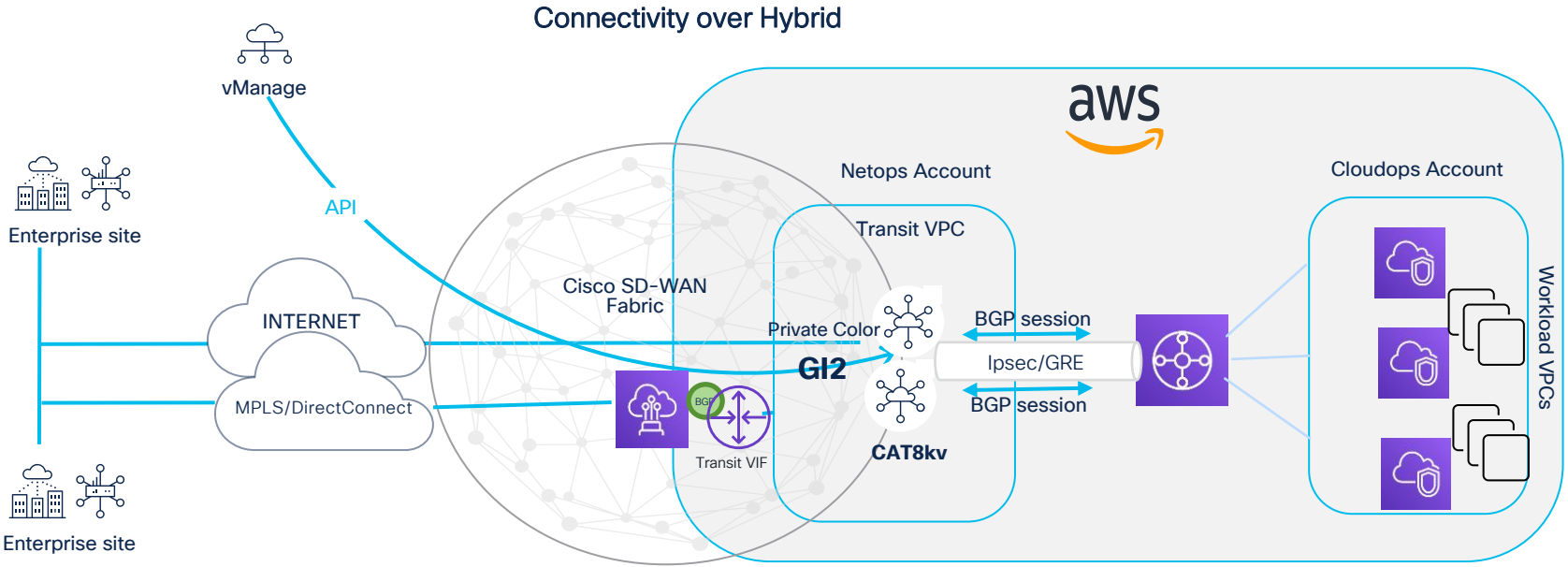


Simple

Automated

Secure

On-Prem to AWS- Resilient connectivity

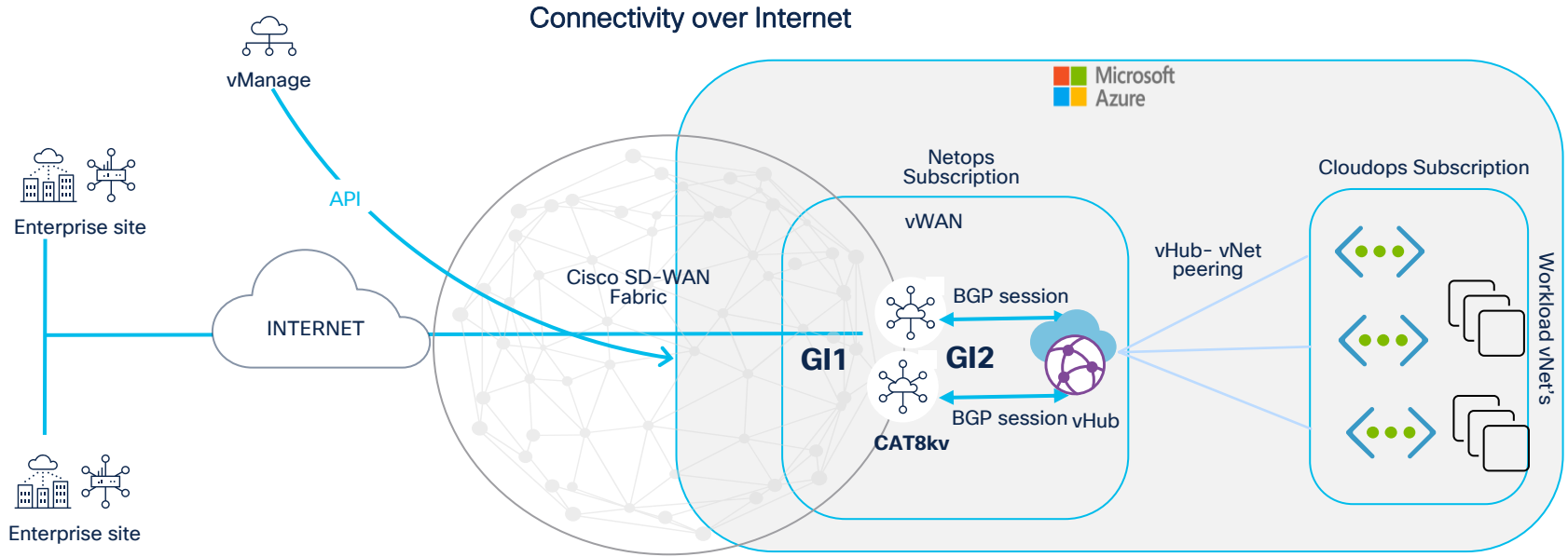


Simple

Automated

Secure

On-Prem to Azure connectivity - Over single Transport

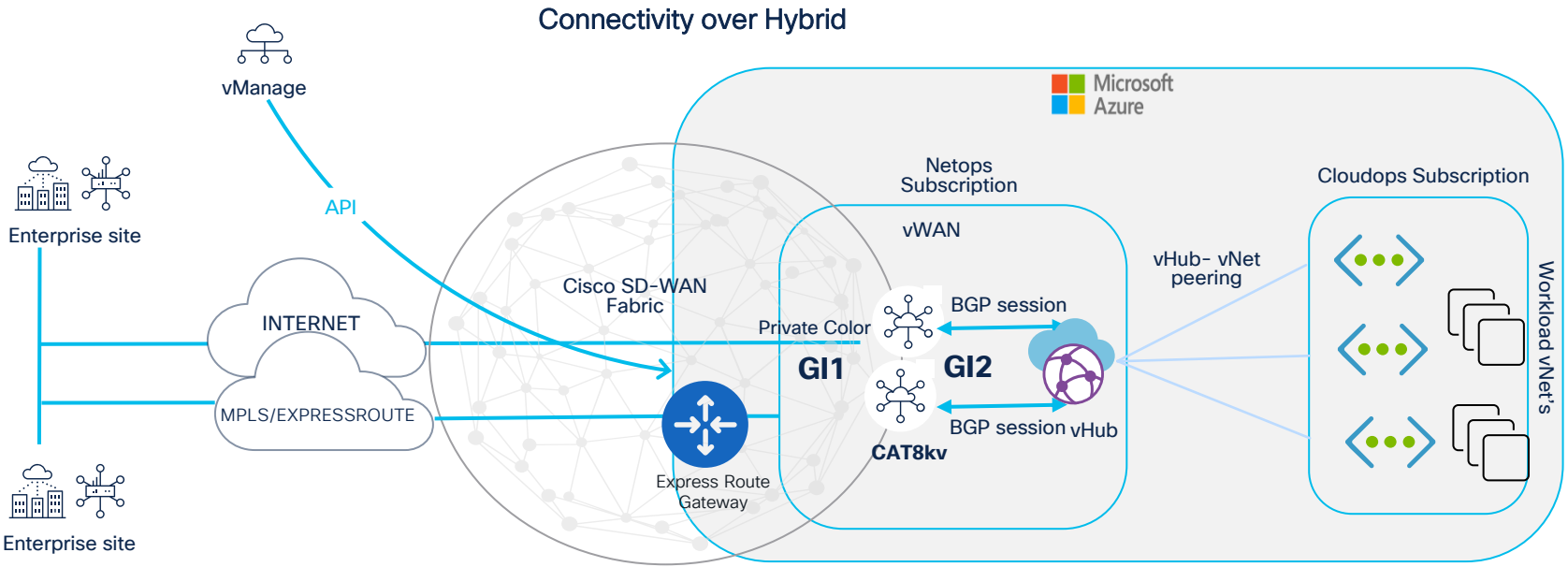


Simple

Automated

Secure

On-Prem to Azure Resilient connectivity

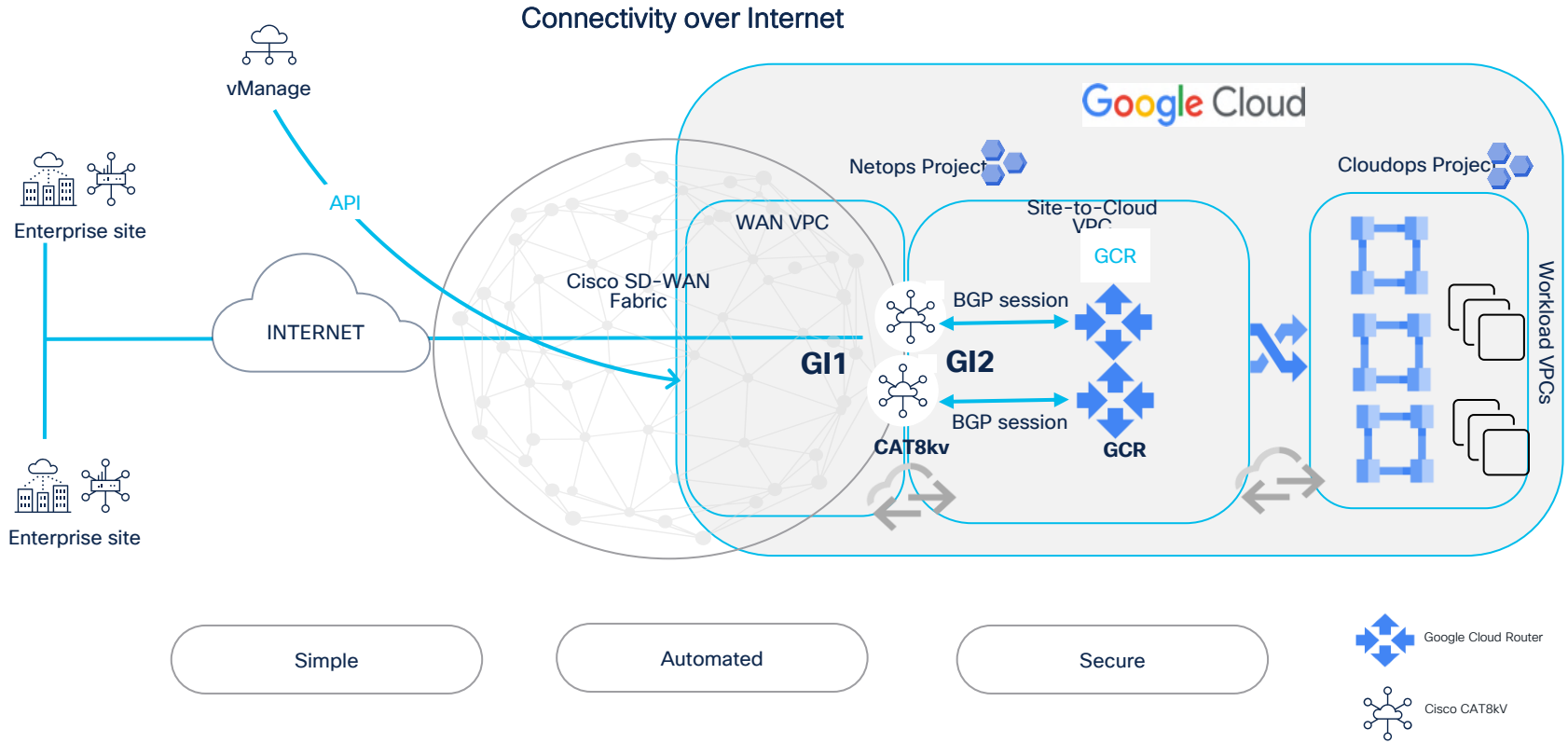


Simple

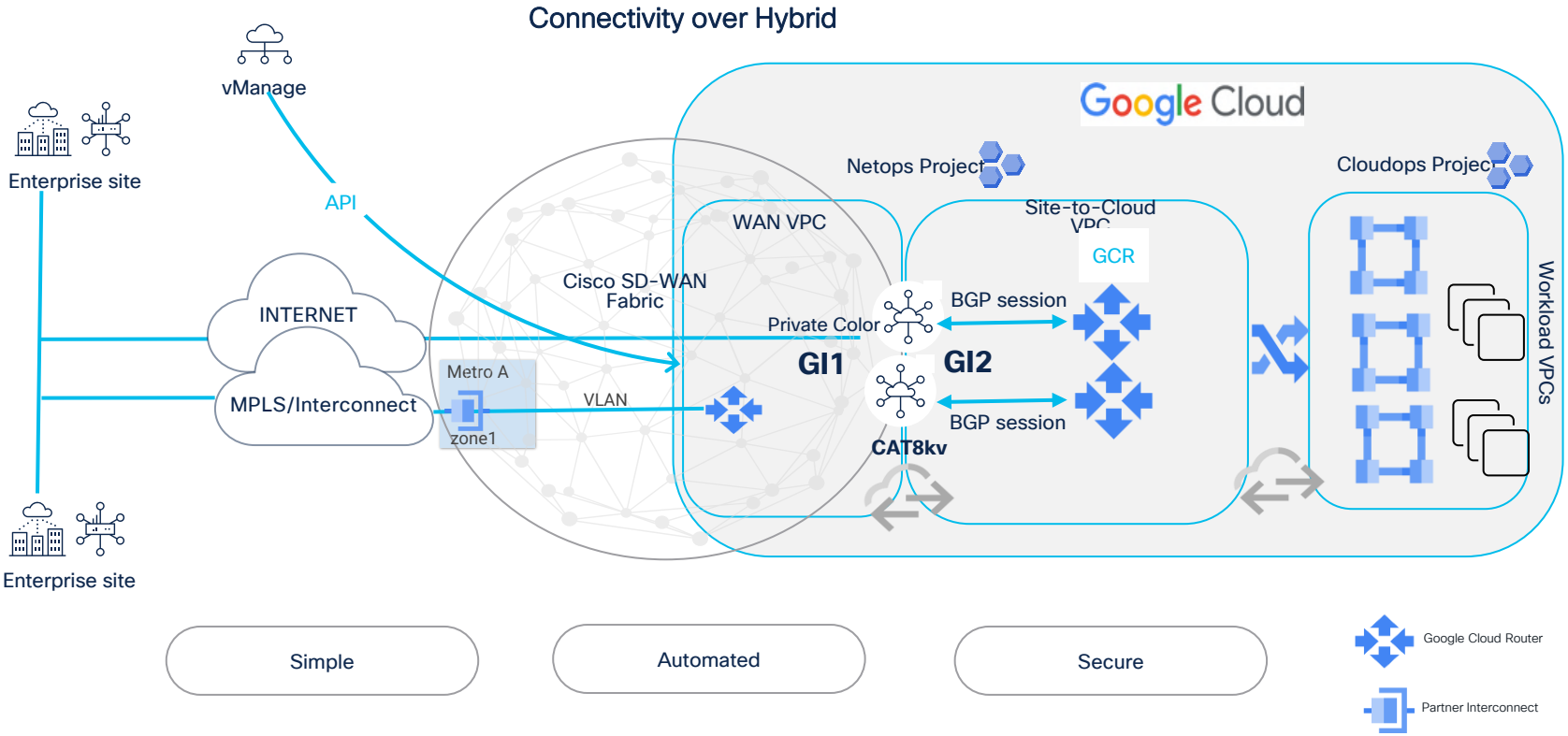
Automated

Secure

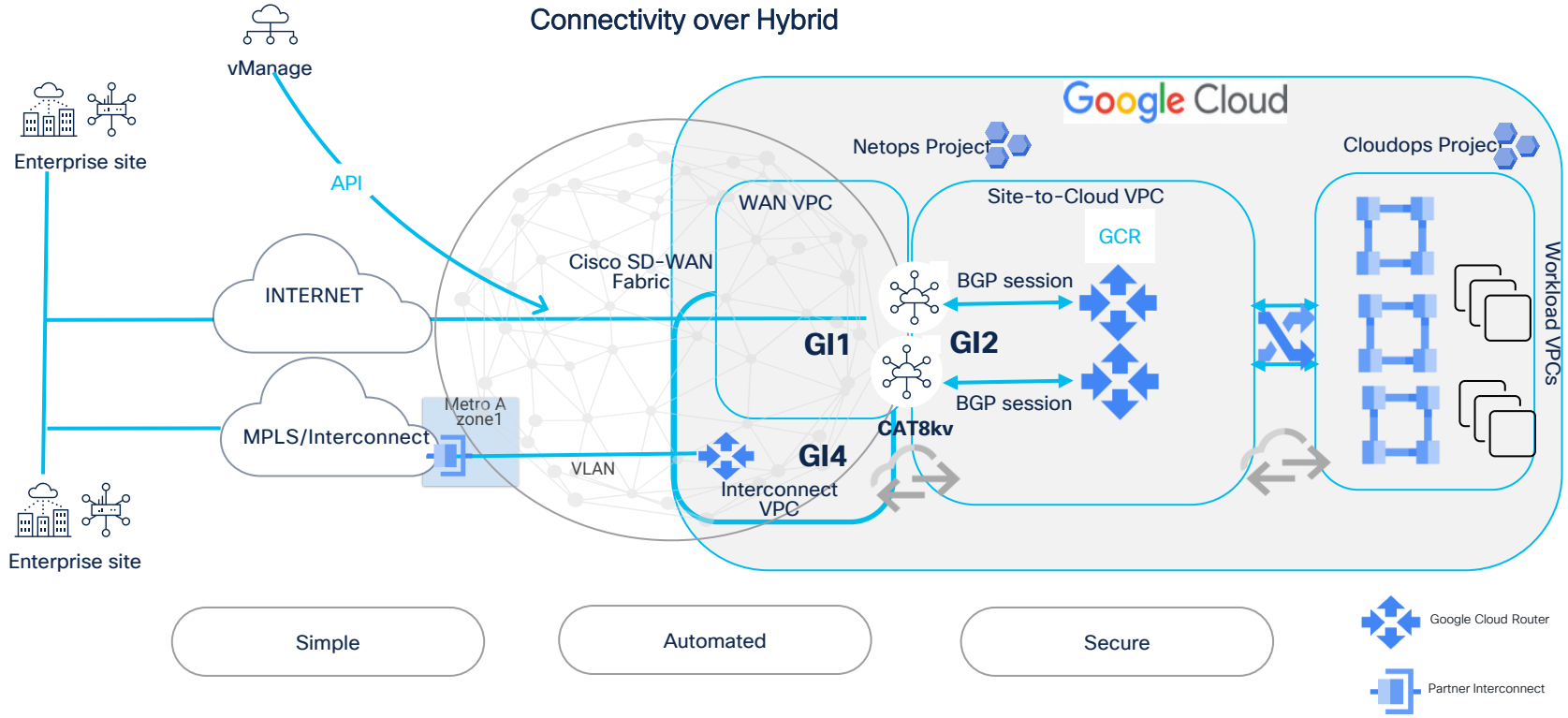
On-Prem to Google connectivity - Over single Transport



On-Prem to AWS- Resilient connectivity-1



On-Prem to AWS- Resilient connectivity-2



Simple Security Insertion

Cisco Multicloud Defense

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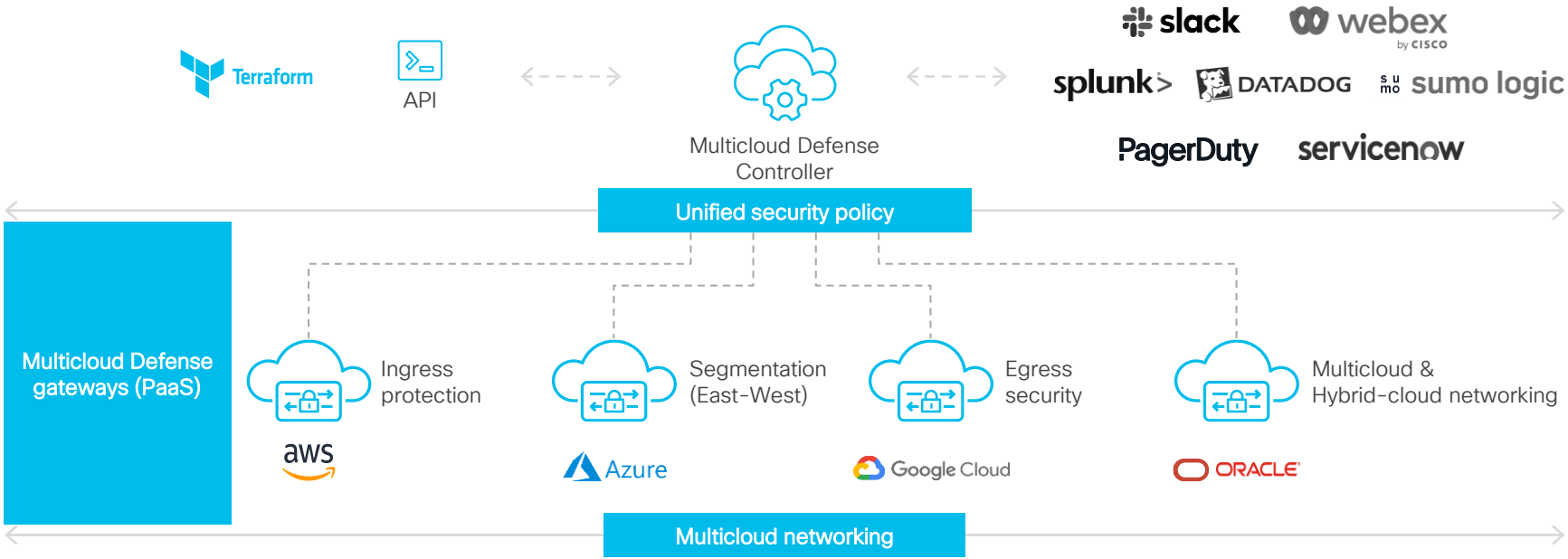
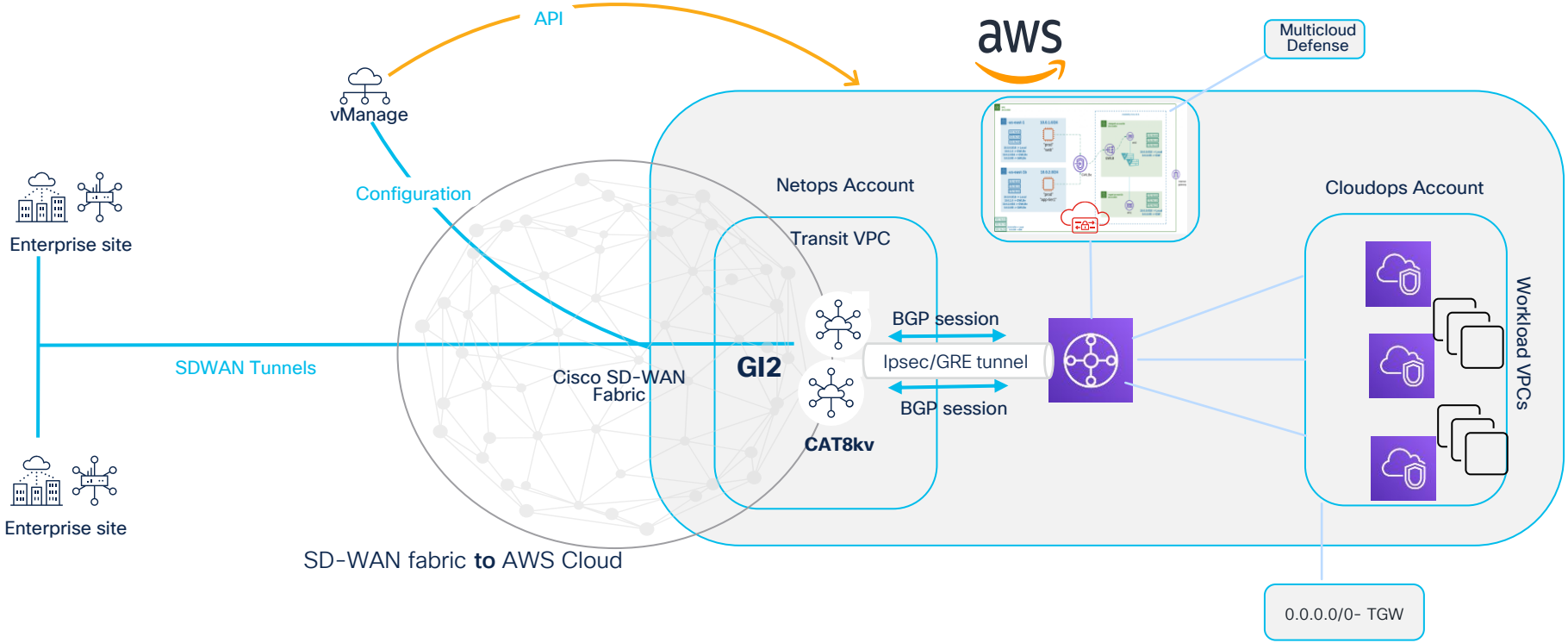
Cisco Multicloud Defense



AWS - Site-to-Cloud

SD-WAN Native Integration using **Ike IPSEC** between c8kvs within Transit VPC and Transit Gateway



Simple

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Secure

Azure - Site-to-Cloud

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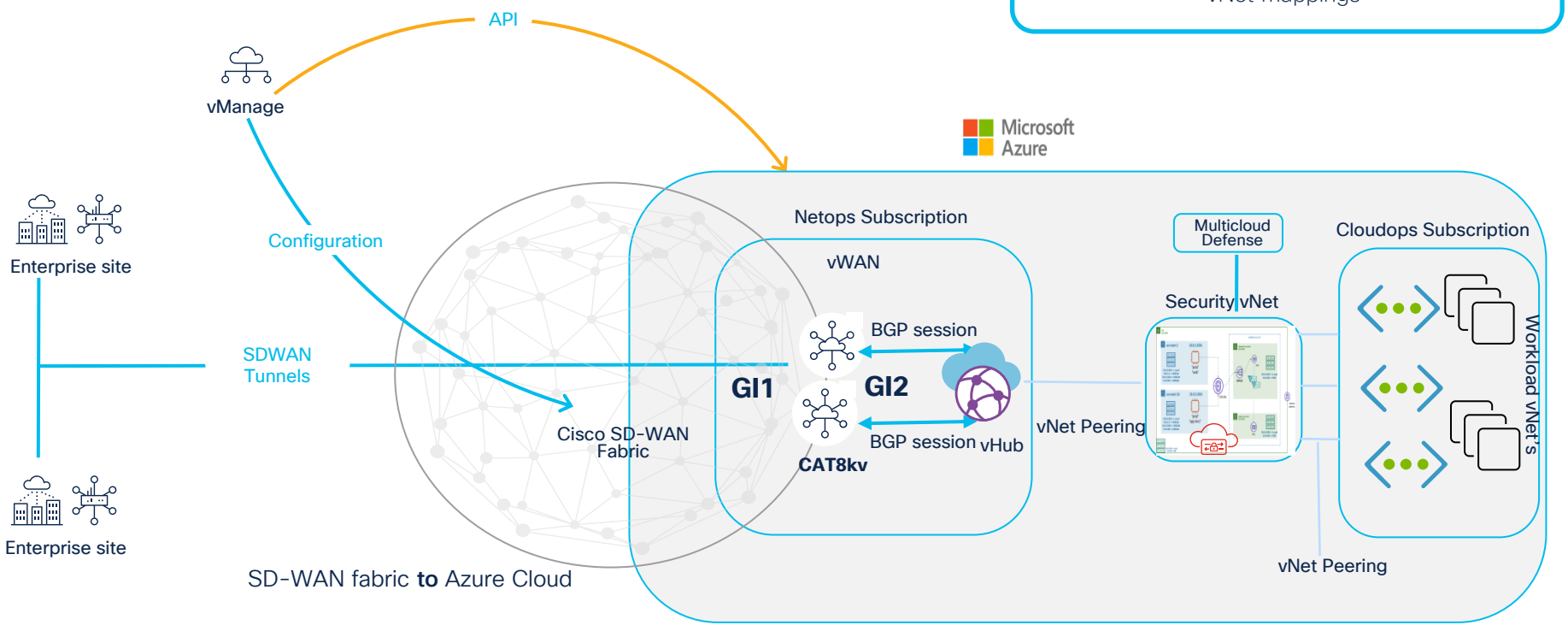

Simple

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Secure

Google Cloud - Site-to-Cloud

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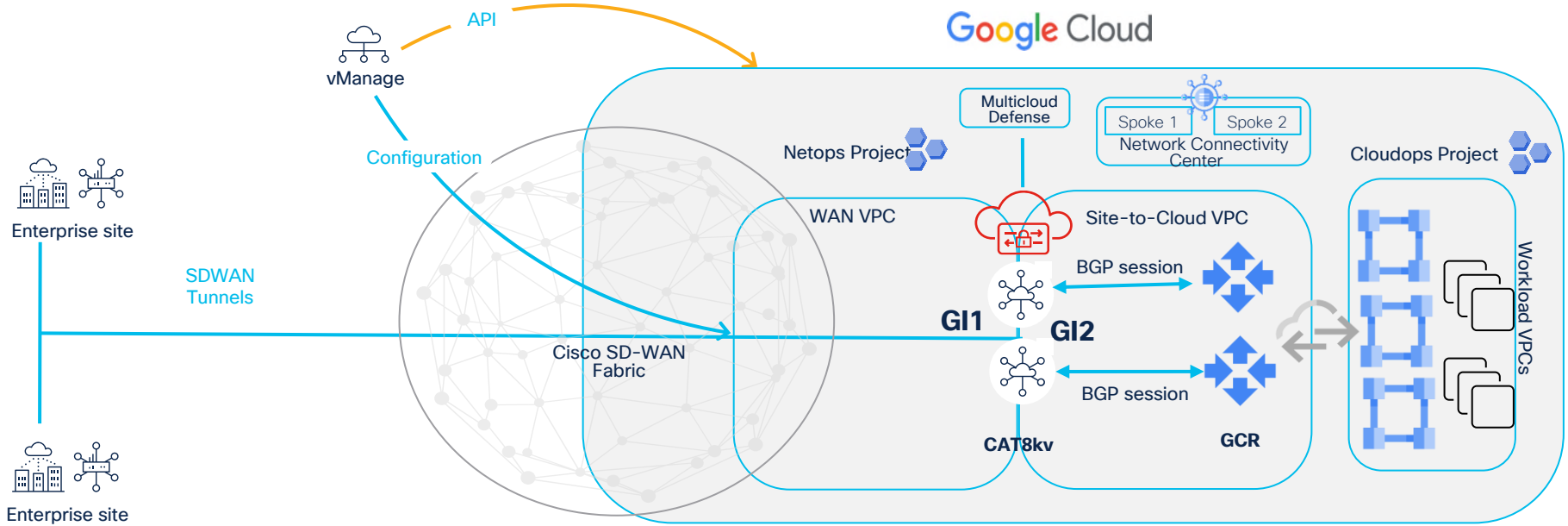
SD-WAN fabric **to** Google Cloud workloads



Simple

Automated

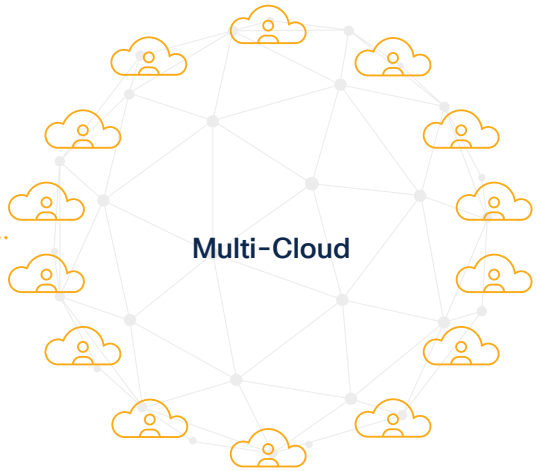
Secure

Google Cloud Router

“Connectivity and security to Multi-cloud has been unified.”

Prashant Tripathi

Cisco



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The bridge to possible

Thank you


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Let's go
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