



Network Observability and Automation for VCF

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VCF Catalog of Advanced Services



Cyber Compliance, Risk Mgmt

VCF Advanced Cyber Compliance



Advanced Security

VMware vDefend Firewall with ATP



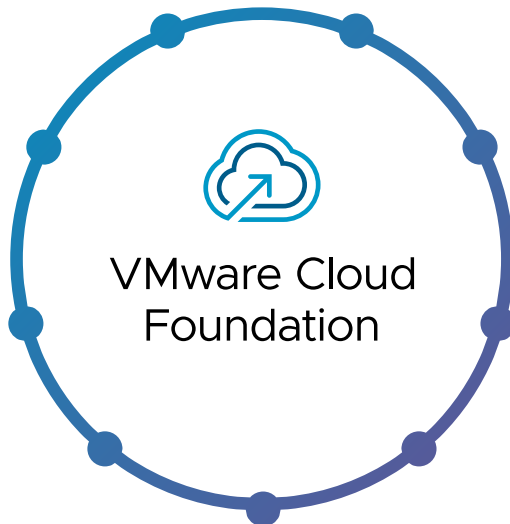
Load Balancing

VMware Avi Load Balancer



Application Services

VMware Tanzu Platform



Identity Security



Identity Access Management
Privileged Access Management

Business Operations



Automatic Automation by Broadcom
ValueOps by Broadcom

Network Observability



Network Observability by Broadcom

Data Services



VMware Data Services Manager
VMware Tanzu Data Intelligence

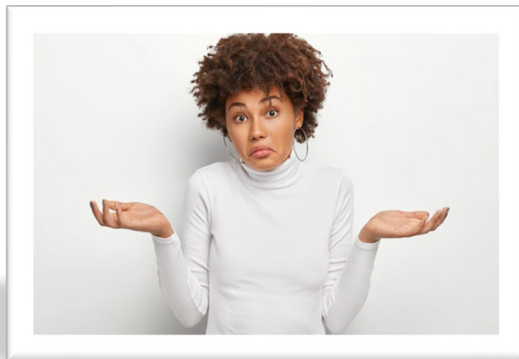
Advanced Services are additional solutions available from Broadcom that can extend the value of a VMware Cloud Foundation (VCF) environment. While not included with VCF, they offer deep, native integrations and capabilities that are uniquely available within the Broadcom portfolio.





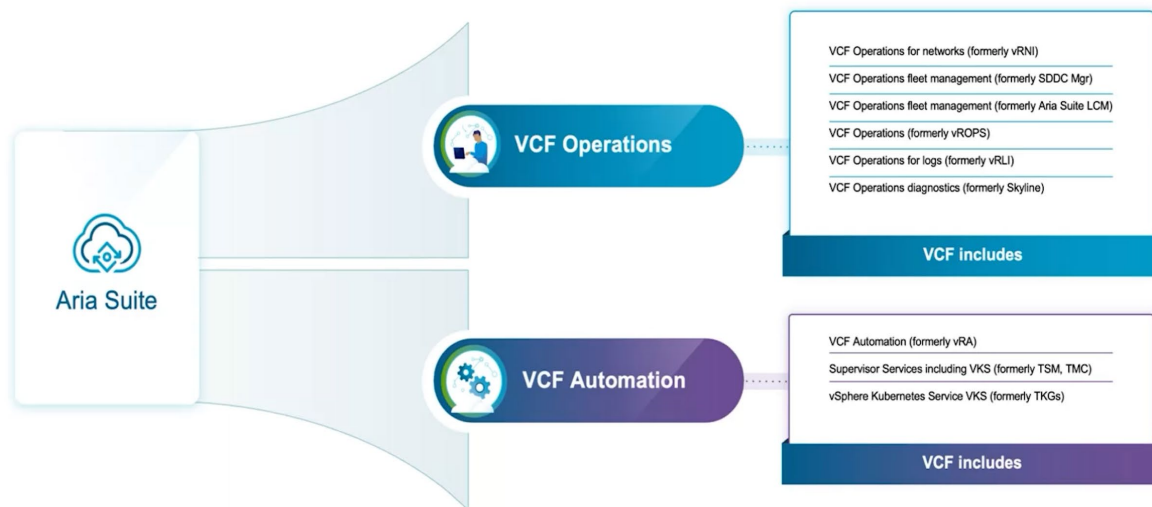
VCF Operations & VCF Automation

Why Do We Care?



VCF Operations & VCF Automation

VCF Operations & VCF Automation (formerly known as Aria) **is no longer a standalone suite**—it is now fully integrated into the VCF binary. You cannot buy them separately, and in VCF 9.0, you cannot run the SDDC (software defined data center) without it.



Good: Operations and Automation V9.0

Operations

Networks - *Faster isolation of network-related issues across the stack*

- Deep visibility into **NSX-based networking** (overlay, routing, firewall)
- End-to-end path analysis across virtual and physical boundaries
- Correlates network performance with application impact

Fleet Management - *Consistent operations at scale across data centers*

- Centralized visibility across all VCF domains and clusters
- Lifecycle awareness (versions, patch levels, configuration state)
- Capacity and health across the entire fleet

Logs - *Reduced MTTR through unified observability*

- Aggregates logs from vSphere, NSX, vSAN, and workloads
- Real-time ingestion and indexing
- Correlates logs with metrics and events

Diagnostics - *Higher uptime and operational confidence*

- AI/ML-driven anomaly detection (behavior-based, not static thresholds)
- Root cause analysis across compute, storage, and network
- Proactive alerts with recommended actions

Automation

VCF Automation (core platform) - *Faster delivery with built-in governance*

- Self-service provisioning via catalog
- Infrastructure-as-Code blueprints
- Policy-driven placement and governance

Supervisor Services including VKS (vSphere Kubernetes Service) - *Unified VM + container platform under one control plane*

- Automates enablement and lifecycle of Supervisor Cluster services
- Integrates Kubernetes directly into vSphere infrastructure
- Manages policies, networking, and storage for Kubernetes workloads

vSphere Kubernetes Service VKS - *Production-ready Kubernetes at scale, with governance*

- Automates deployment and lifecycle of Kubernetes clusters via Supervisor
- Provides standardized, policy-controlled K8s clusters
- Supports Day-2 operations (scale, upgrade, patch)



The Opportunities: Operations and Automation V9.0

Automation

The "Native VPC" Mandate

The Limitation: If your organization still relies on "Brownfield" VLAN-backed port groups, you lose roughly **50-60% of the automation value**. VCF Automation 9.0 effectively **treats legacy networking as a "second-class citizen."**

Deprecation of "Code Stream" (Pipeline) - phased out

The Limitation: Organizations that built extensive CI/CD pipelines directly inside Aria Automation now face a **technical debt cliff**. VCF 9.0 **expects you to use external GitOps tools** (like ArgoCD, GitLab, or Tanzu-native services) – **requiring manual rewrite**.

Lifecycle Coupling (The "Version Lag")

The Limitation: VKS versions are validated and tied to the VCF release cycle. While Broadcom provides **24 months** of support (longer than upstream), **you are still bound to the versions we have certified.**

Operations

Networks - Best-in-class inside VMware stack, but not a full hybrid network observability replacement	• Dependent on NSX-centric visibility, deep insights require NSX integration; limited value in non-NSX or brownfield VLAN environments. • Strong in virtual networking, weaker in physical network correlation. • Network observability tied to VCF lifecycle and fleet management constructs
VCF Ops (Logs) - Modernized logging, but disruptive transition and not a full enterprise log platform replacement	VCF 9.0 introduces a new scale-out architecture for logs. However , you <u>must deploy fresh and "hook up" old data if needed.</u>
Fleet Mgmt - Powerful at scale, but introduces operational rigidity and upgrade complexity	The "Fleet Manager" is the new heart of VCF. Aria has tight coupling of lifecycle workflows creating limited flexibility outside prescribed upgrade and lifecycle paths.
Diagnostics - Strong for VMware-native RCA, but not a universal observability platform	• Dependent on full data ingestion - value is only as good as integrated components (vCenter, logs, NSX, etc.). • Combines multiple tools, however, it still requires proper configuration and integration. Primarily focused on VMware stack, not heterogeneous environments.



Operations and Automation V9.0: Risks

Operations and Automation V9.0 now manages the **Operating System of the Private Cloud**. While this provides unprecedented integration, it introduces **three specific risks**.

1. The "Clean Slate" Requirement for Logging

VCF 9.0 logging requires a **net-new deployment**.

- **Impact:** Historical log data does not migrate natively. Organizations with strict 1-year+ compliance requirements will need to maintain a "legacy" logging cluster during the transition period.

2. Operational Rigidity (The "Golden Cage")

By unifying Operations and Automation into the VCF core, we have **traded flexibility for stability**.

- **Impact:** You can no longer "cherry-pick" versions (e.g., running an older version of Automation with a newer version of vSphere). The entire platform must move forward in lockstep, which simplifies support but increases the "blast radius" and complexity of every upgrade cycle.

3. Shift to VPC-Centric Networking

The automation engine is now **heavily optimized for Native VPCs**.

- **Impact:** If your networking team is resistant to moving away from traditional VLANs/Subnets toward a software-defined VPC model, you will only realize ~40% of the value of VCF 9.0 Automation. This is a cultural and architectural pivot, not just a software update.



Visibility Gaps Hindering Cloud Performance

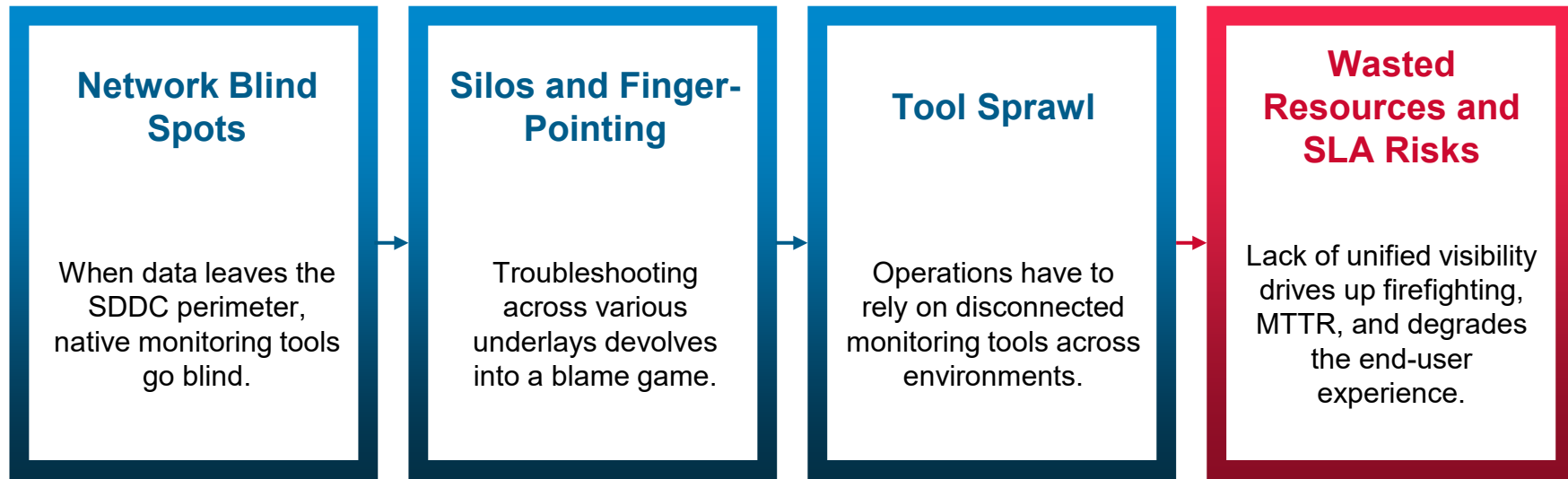
65%

of IT leaders link cloud application success directly to network performance.

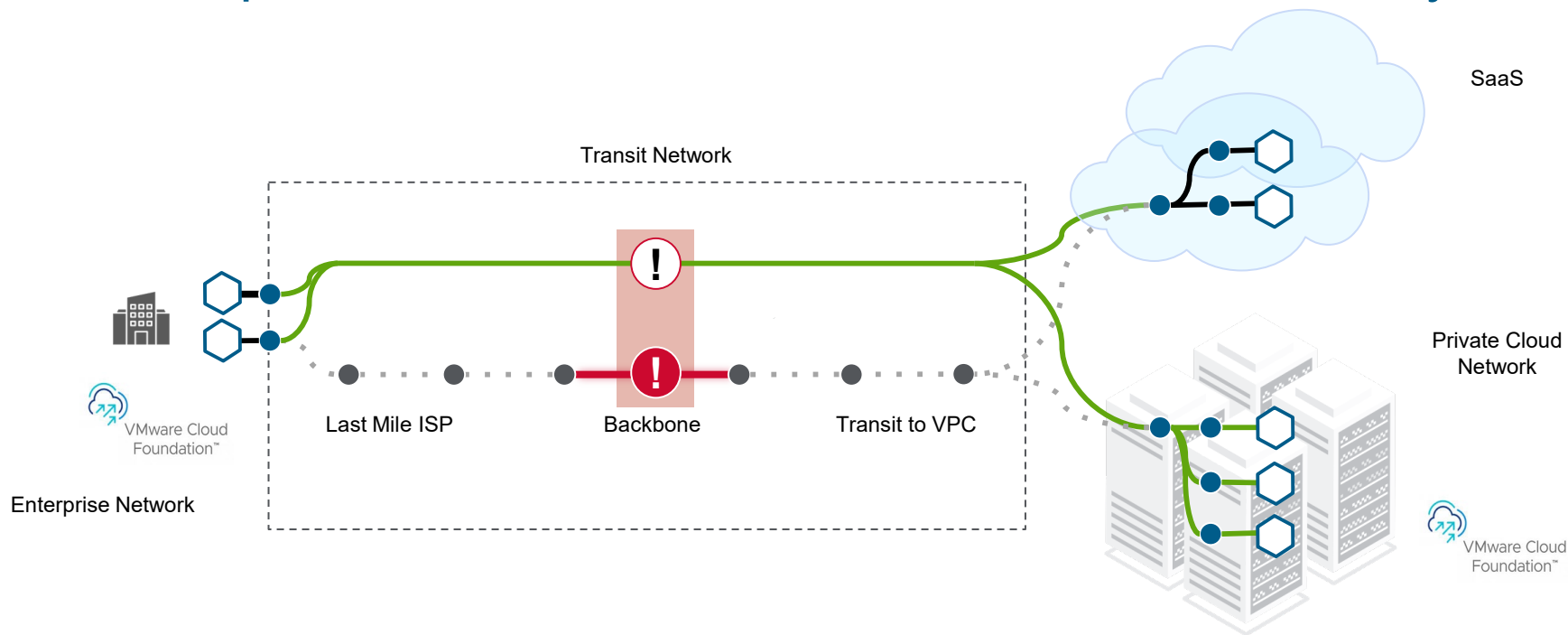
32%

cite a lack of expertise and visibility as the primary hurdle for VCF migrations.

VMUG Cloud Operations and VCF User Experience Report 2026



Core Requirements for Actionable Network Observability



End-User Perspective

Active monitoring to detect degradation before users report it.

Hop-by-Hop Path

Visibility into third-party networks (ISPs, public cloud, SaaS).

Overlay-to-Underlay

Mapping logical VCF traffic directly to physical hardware.

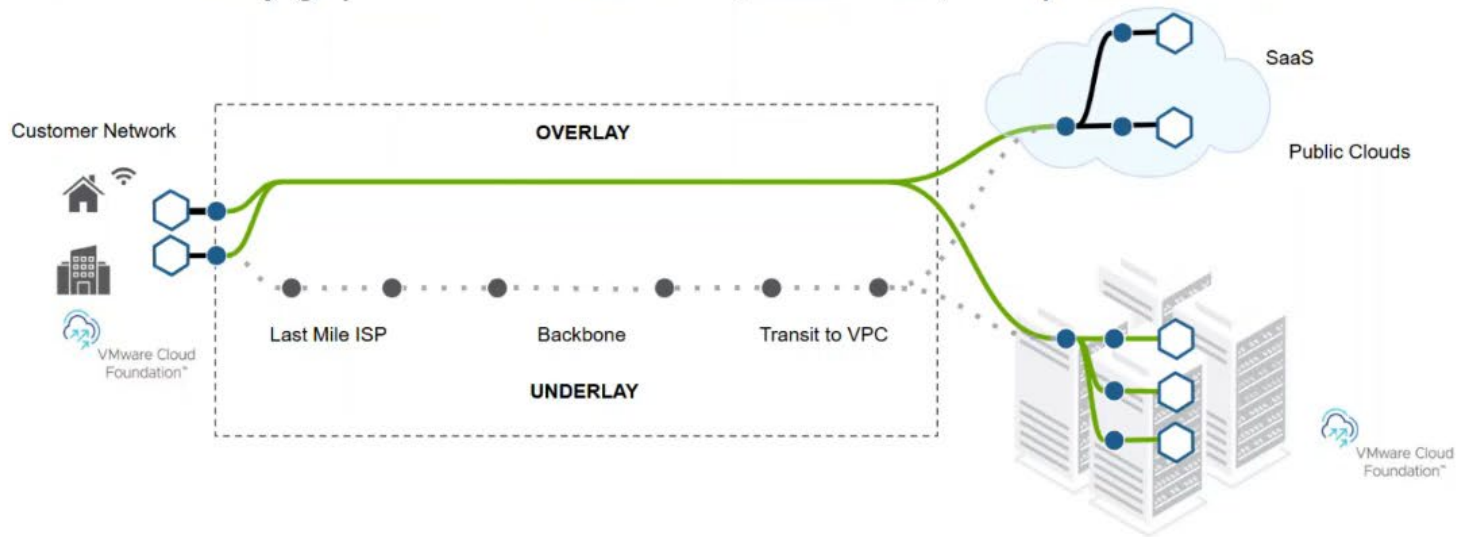
Unified Telemetry

Combining active and passive metrics in single diagnostic.



Demo Setup: The Network Blind Spot Challenge

Close the visibility gap across last-mile ISP, backbone, and public cloud/SaaS



Network Observability by Broadcom: Going Beyond Monitoring

FAULT | Analytics

Reduce MTTR by **rapidly isolating error domains using root cause analysis, topology, and configuration management** across multi-vendor, multi-technology networks.



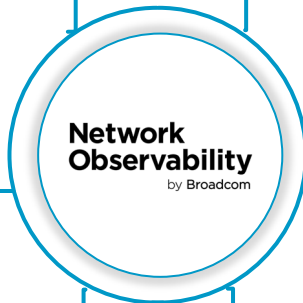
PERFORMANCE | Analytics

Ensure service availability by leveraging **algorithmic anomaly detection, automated baselining, trend analysis, and capacity planning** across diverse data streams (SNMP/API/Telemetry).



FLOW | Analytics

Improve network efficiency with end-to-end **traffic visibility by understanding bandwidth use, capacity, configuration, and app performance**, leading to optimized resource allocation.



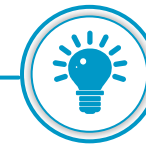
USER EXPERIENCE | Monitoring

Enhance **user experiences** and quickly identify potential issues with **proactive visibility into network and application performance** across all domains.



MODERN | Network Monitoring

Optimize SDx performance with **comprehensive visibility into SD-WAN, SDDC, and API** controllers via event, topology, and performance mapping.



NETWORK CONFIGURATION | Configuration

Optimize performance with **the ability to monitor, change and update configurations of devices and systems**



Comprehensive, industry-leading end-to-end Network Observability solution that is technology-agnostic and scalable.



Real World Examples

Technical solutions with existing customers

WAN Performance Degradation Impacts Workload Migration

Customer with multiple locations and DCs in Europe. End-user complaints of “general slowness” between offices and data center hosted applications.

Resolution:

Continuous performance visibility proactively from the end-user perspective

Mitigating Configuration Drift Impacting User Experience

Customer complained of poor performance with services hosted in VCF and connectivity to 3rd party SaaS instances.

Complex Mesh. Difficult to prove innocence for VCF Team

Resolution:

End-to-end network insights to pinpoint external configuration drift

Ensuring Application & Service Quality Across Hybrid Cloud

Customer reported issues when logging into VCF hosted web services and lack of connectivity to NSX LBs and HCX Consoles

Resolution:

Synthetic transaction monitoring to proactively simulate user interactions with apps (login, workflows..)

Automated Detection and Isolation of the Physical Network

Customer was forced to swivel chair between multiple solutions in order to correlate the physical device topology to VCF domain.

Resolution:

Contextual integration to provide a single view across the physical and virtual domains.



Network Observability for VCF

How Broadcom can stop the tool sprawl chaos



Perils of Tool Sprawl



- Tool overload slashes success by **20%**
- Teams use **4–10** tools; **61%** report blind spots
- 31%** of execs underestimate sprawl danger



Solution Value

- ✓ **Unified View:** Cross-silo visibility
- ✓ **AI-Ready:** Advance RCA at AI scale
- ✓ **Scale:** Enterprise-grade architecture



Operational Outcome

- ↓ **Reduced** MTTD, MTTI & MTTR
- ↓ **Lower** Licensing Costs
- ↑ **Optimized** VCF Ops

Functional Area (The Network Silos)	The Sprawl (Network Point Solutions)	Network Observability by Broadcom
From Apps to Network	Datadog, Dynatrace, Cisco/Splunk, LogicMonitor	Deep Vendor-Agnostic RCA
Performance & Fault	SolarWinds, SevOne, Zabbix	End-to-End Fault & Performance
User Experience	ThousandEyes, Catchpoint	Active & Passive User Experience Validation
Network Automation & NCM	NetBrain, OpenText NA	Built-in NCM with Integrated Automation
Hybrid Cloud & SDDC	BluePlanet, OpenText CNO	From Datacenter to Edge to Public and Private Cloud

Consolidate point tools into a single solution for e2e network visibility and operational efficiency.
One Vendor. One Contract



Cloud Network Insights (CNI)

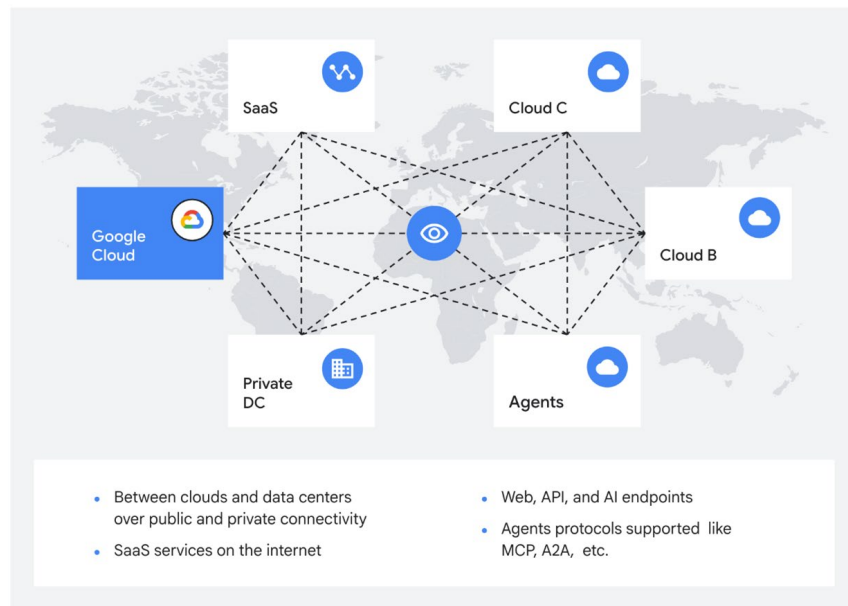
Powered by AppNeta by Broadcom

Strategic Partnership & Innovation

- **What is it?** [Google first-party offering](#) available from Google exclusively for Google Cloud customers

Designed for the growing complexity of Cross-Cloud Network environments as a comprehensive solution for network visibility from Google Cloud to other cloud (private or public), enterprise, or data center environments.

- **How it came to be:** AppNeta won a technical evaluation against another popular active monitoring vendor on our ability to scale, monitor with low overhead, and our data granularity.



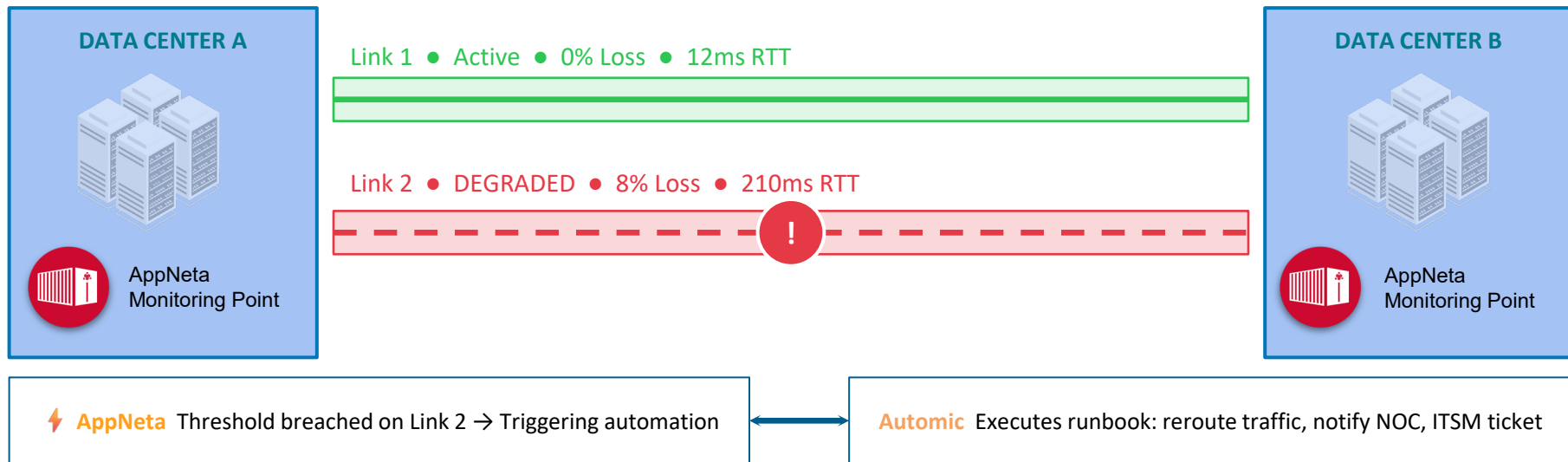
“By bringing AppNeta’s comprehensive observability technologies into our Cloud Network Insights product, we are equipping customers with the end-to-end insights they need to proactively optimize agent, application, and network experiences and rapidly pinpoint network bottlenecks.”

— Rob Enns, VP and General Manager of Cloud Networking, Google Cloud



Active WAN Assurance with Automated Remediation

AppNeta monitors active-active WAN links between data centers and triggers **Automatic** workflows on degradation



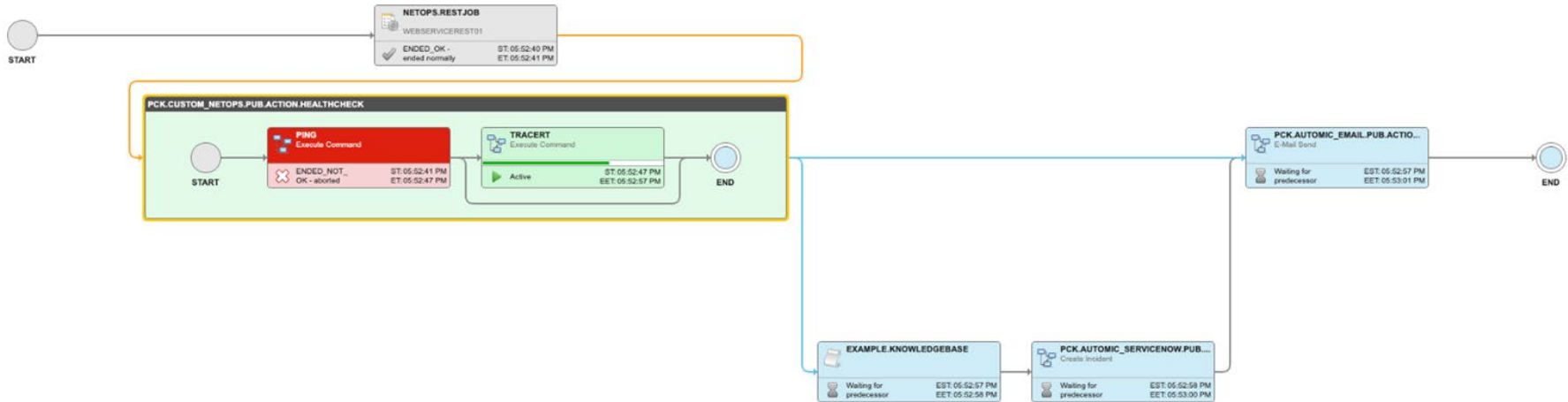
Key Value Drivers

- End-to-end WAN visibility across both active links — RTT, packet loss, and jitter tracked probe-to-probe, eliminating blind spots between sites.
- Closed-loop remediation in minutes — AppNeta alerts trigger Automatic runbooks that reroute traffic, notify the NOC, and open ITSM tickets before users feel the impact.
- MTTI slashed from days to seconds — teams move from reactive blame cycles to evidence-based response with full path-level visibility.



Active WAN Assurance with Automated Remediation

Orchestrate complex tasks e2e across different Techs, Clouds (vendor agnostic) or platform. [NetOps Action Pack](#)



Sample Use Cases

- Remediation workflow before ticket + Notification
- Optimize traffic distribution based on performance metrics
- Auto-provision of new circuits or traffic rerouting based on AppNeta alarms





Actual Use Case

DX NetOps
by Broadcom

Automic
by Broadcom

vmware

CA SDM
by Broadcom



The Autonomous Infrastructure

How a large LATAM customer optimized VM right-sizing at scale using Automic Automation, NetOps and VCF Operations



Customer Cross-Sell Delivered

Use Case Information	Description
VCF Environments	2,720 VCF cores and 4,132 VVF core
AOD Adoption Plan	Automatic, NETOPs and VALUEOPs
ABV	\$500K+ (AOD PLA)
Pain Point	High MTTR for Right-Sizing actions
AOD Solution	Automatic v24 + NETOPs
Duration	4 months



Phase 1: Intelligent Remediation – Live in Feb-2024

6 Billion

Transactions processed per year

26

Countries served across LatAm

80,000

POS terminals deployed

The Agility Barrier

~4,000 Servers Managed

Constant Alarms
(Spectrum/UIM)

Manual CA SDM
Ticket Creation

Manual Expert
Intervention

Manual Ticket
Closure

Massive specialist team required.
Fundamentally unaligned with the
pace of agile service delivery.

Broadcom Automatic Solution



4 Targeted Use Cases:

Disk Space
Process Not Running
HTTP Alarms
CPU Ticket
Enrichment

3 Managed OS Environments:

Windows
Linux
AIX

Security Foundation:

Hardened rules for
secure, authorized
automated actions

Operational Results



Speed & Efficiency

Automates manual processes
faster; provides complete end-to-
end lifecycle coverage.



Cost Reduction

Reduces operating costs and
minimizes the specialist team
needed for monitoring.



Optimization & Control

Greater auditing control; frees
specialists to focus on high-
value processes.



Impact of Autonomous Rightsizing: From Manual Bottlenecks to Instantaneous Execution



Previously: Hours, Days, or Weeks

- Dependent on strict change approval windows
- Prone to manual administrator bottlenecks
- High risk of configuration errors and downtime



Today: 2 Minutes

- Zero human interaction required
- 100% error-free autonomous execution
- 100% closed-loop auditability



Phase 2: Encoding Operational Intelligence



The Nerves: NETOPs

Continuously monitors CPU and Memory in the VCF environment, acting as the critical trigger for the RightSize process.



The Brain: VCF Operations (Aria)

Identifies if a spike is a genuine resource shortage or a system fault.

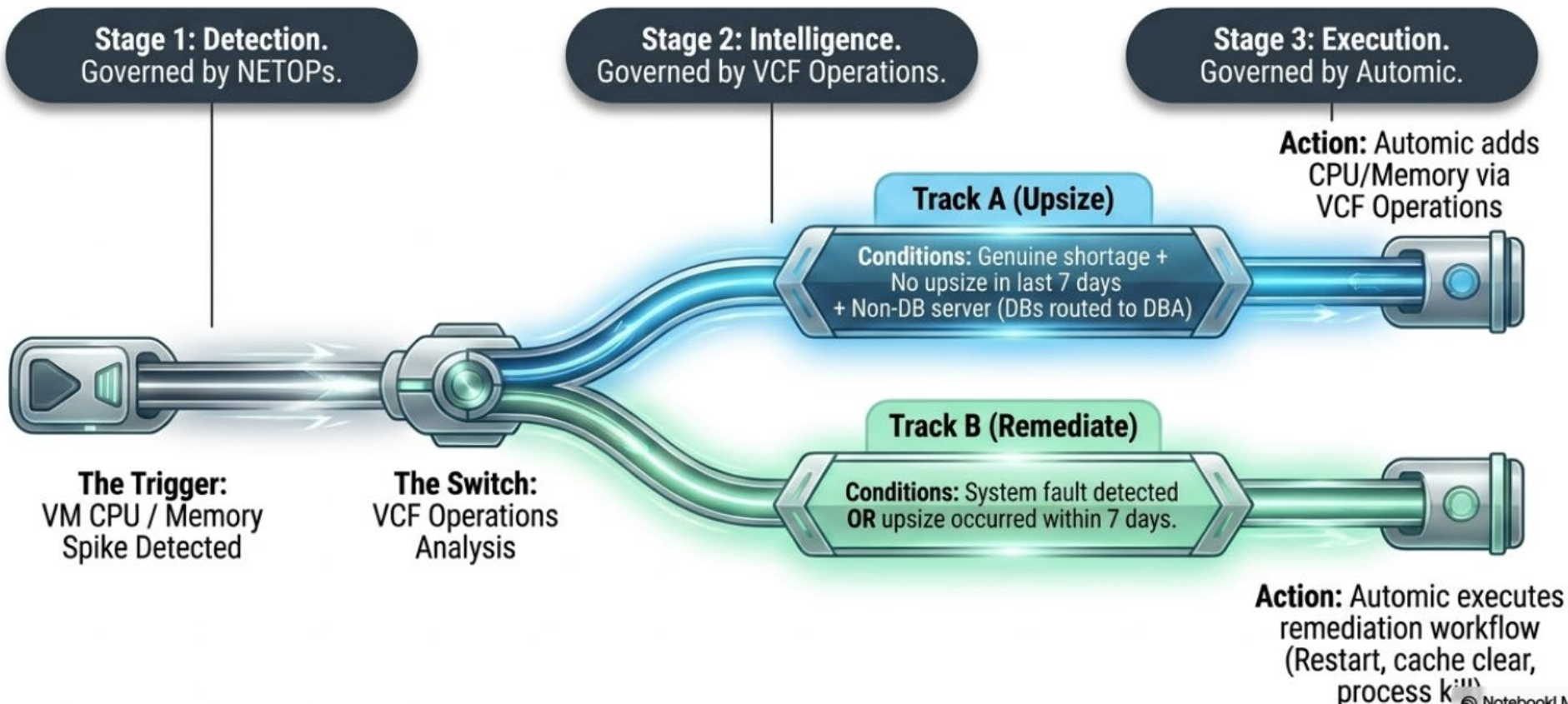


The Muscle: Automic Automation

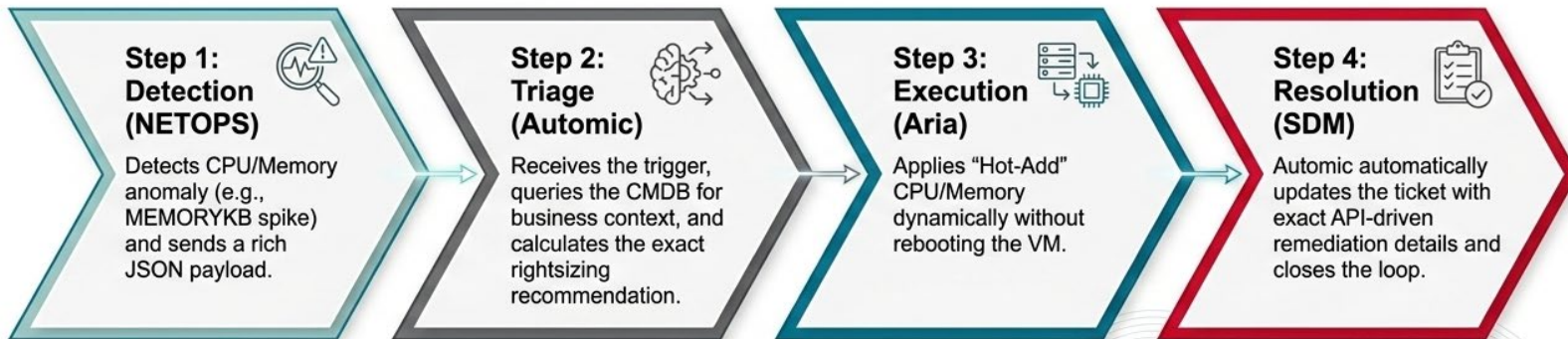
Executes the precise workflow—either upsizing resources or remediating the fault.



Autonomous Decision Logic



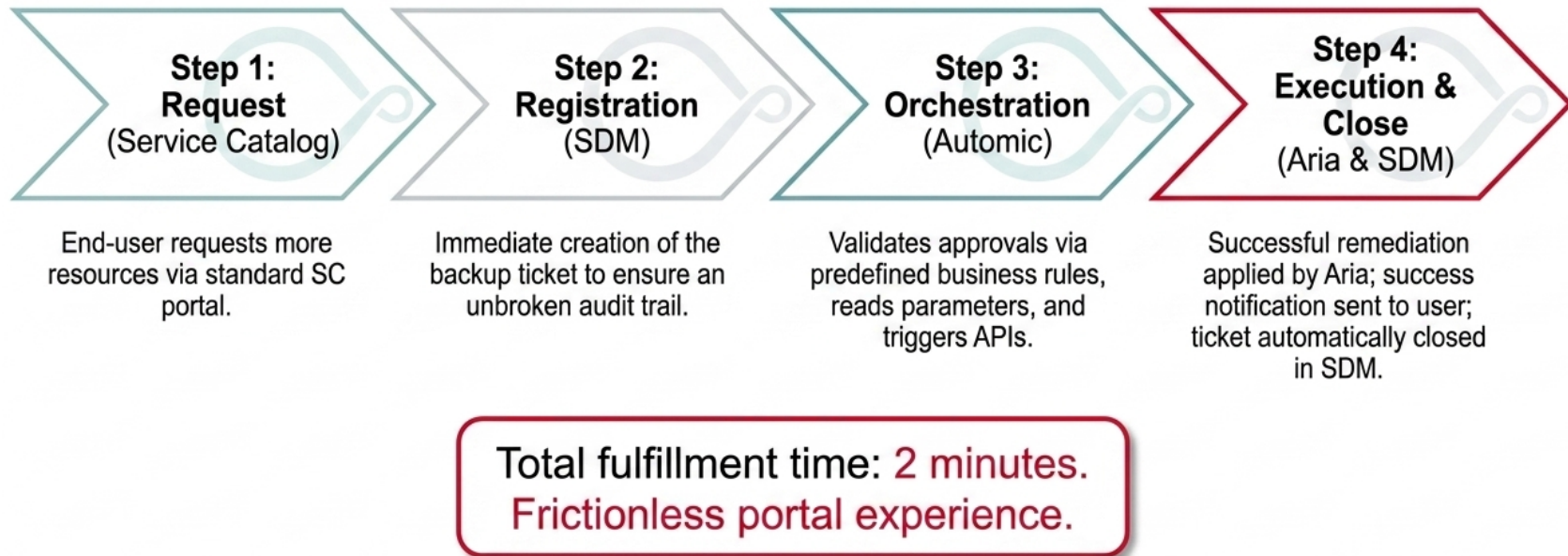
UC#1 - Machine-Triggered Alarm Correction Resolves Capacity Constraints Autonomously



**Total execution time: 2 minutes.
Zero manual touchpoints.**



UC#2 - Intelligent Self-Service Empowers End-Users Without Introducing Operational Risk



The Infrastructure That Takes Care of Itself

Unprecedented Speed



MTTR and rightsizing implementation reduced from days/weeks to exactly **2 minutes** via automated APIs.

Absolute Precision



Zero human error. Changes are dictated by actual historical usage data and governed by strict CMDB safety filters.

Impervious Governance



100% traceability. Every automated change is meticulously and automatically documented in SDM.

"Moving from static infrastructure provisioning to a self-healing, self-governing ecosystem is no longer the future—it is our reality today."



New VCF aligned SKU

Automic Automation VCF Advanced Service

Primary SKU: AUTVCF990, MSRP: \$38/core

- **Included Components:**
 - **Automic Automation:** Enterprise automation unifying mainframe to microservices workload orchestration.
 - **Automation Analytics & Intelligence (AAI):** Predictive analytics for managing complex, multi-vendor workloads.
- **New Customer Constraint:** Only available to customers who do not hold (and have not held in the prior **6 months**) an active, paid entitlement to Automic Automation, Automic SaaS, or AAI.
- **Permitted Base Software Requirement:** Must be licensed strictly as an add-on to **VMware Cloud Foundation (VCF)**.
- **Per-Core Licensing (minimum 1000):** The software is licensed **per Core** matching the physical infrastructure metrics.
- **1-to-1 Alignment Rule:** Customers **must** maintain an entitlement to an equal number of Cores of this software as their licensed VMware Cloud Foundation (Permitted Base Software).

Unlimited Entitlements (During Subscription Term)

- If the customer has an active subscription to the required minimum quantity of VCF Cores, they are entitled to:
- **Unlimited Job Executions** for Automic Automation.
- **All standard integrations**, including the specialized automation tool for **Automated System Copy for SAP**.
- **Unlimited Job Executions** for AAI.



Network Observability SKUs

- Advance Services SKUs
 - VCFNET990: VMware Cloud Foundation Advanced Network Observability
 - VCFNOP990: VMware Cloud Foundation Advanced Network Observability On-Premises
 - Licensing: Core Based
 - Unlimited entitlement
 - Prerequisite
 - Minimum of 10K Cores
 - Customer should be on VCF SKU
 - Customer should deploy Network Observability on VCF Infra
- Regular SKUs (For customers less than 10K Cores)
 - NETOPS990: DX NetOps + 3 AppNeta Universal Licenses
 - DXNOPA990: DX NetOps + AppNeta SaaS
 - DXNOPO990: DX NetOps + AppNeta On-Premise
 - Licensing: Device based (NetOps) + Universal & Appliance based (AppNeta)
 - Entitlement based on requirement/contract





Thank You