

SOLUTION BRIEF

NETWORK OBSERVABILITY FOR VCF

Enhanced visibility, even into networks beyond your control

KEY BENEFITS

Unified Network Triage and Alarm Noise Reduction

- Tears down silos, uniting traditional network and private cloud data into a single, actionable view.
- Quickly identify the owner and the root domain of network performance issues.

Cross-cloud and Underlay Visibility

- Get visibility into the network portions you rely on, but do not own.
- Manage ISPs based on service levels and capacity actually delivered.

Application Experience Monitoring

- Gain end-to-end visibility into multi-tier applications across private and hybrid clouds.
- Understand network performance from the end-user perspective.

Business Challenges

As a private cloud operator, what you can't see will hurt you. Multi-vendor management tool sprawl turns network triage into chaos, wasting specialists' time and increasing the risk of downtime. Blind spots in ISP and cloud interconnects leave external issues unchecked, leading to unpredictable disruptions in performance. Meanwhile, limited application visibility at layer 7 exposes user experience to hidden bottlenecks and latency. Without complete visibility, your private cloud's reliability and performance are at risk.

- Chaos takes over when NOC and VCF teams don't share and correlate network data. Delayed resolutions, operational inefficiencies, and misaligned responsibilities lead to alert fatigue and finger-pointing. Application downtime and degraded user experiences can then turn into negative outcomes.
- Transport slowdowns or failures due to ISPs or cloud interconnects are often invisible to internal teams responsible for managing VCF operations, leading to inefficient workload mobility, lengthy troubleshooting, and poor user experience.
- Multi-tier applications deployed on VCF often have complex dependencies on microservices and external APIs. Bottlenecks or failures in these components can be invisible as management tools don't provide insights into how applications perform at the user level.

In summary, while a private cloud environment offers greater control compared to public cloud solutions, complete ownership and oversight of the network are distributed across multiple layers, teams, and third-party providers. This inherent complexity makes comprehensive control and troubleshooting a shared responsibility rather than one fully under your organization's purview.

Solution Overview

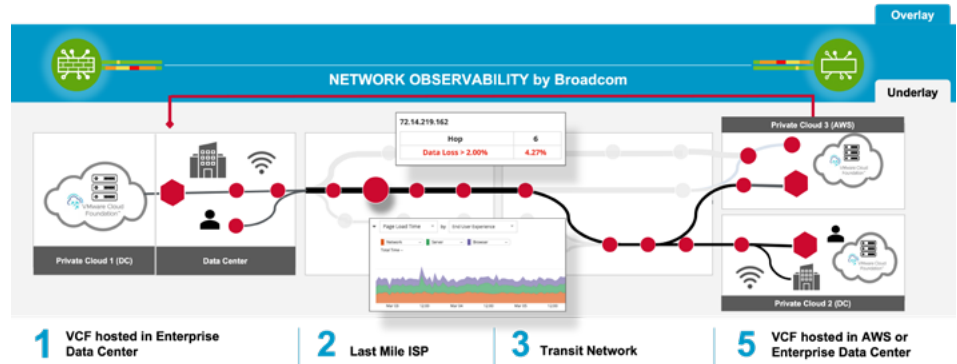
Network Observability by Broadcom extends VCF management capabilities with end-to-end visibility into the network overlay, underlay, and applications hosted in public or hybrid cloud. The solution provides actionable insights to automatically pinpoint problems, resulting in lower internal resource costs and faster issue resolution, quickly getting end-users back to revenue-producing activities.

Using an intelligent mix of passive and active monitoring, the solution enables network operations teams to fully understand how performance is affected by common issues like device outages, route changes, connectivity drops, and ISP peering changes. By helping identify whether issues originate within the VCF domain or elsewhere, the solution empowers network teams to reduce Mean Time to Innocence (MTTI) for problems outside their area of responsibility.

The solution can be delivered as a service, making it easy to monitor complex networks in public, private, and hybrid cloud infrastructures. Monitoring points are deployed across the data center, branch, or Tier 1 cloud providers. With the solution, you can realize the full potential of your VCF environments by extending your reach far beyond the edges of your local networks.

KEY CAPABILITIES

- Multi-vendor device and topology discovery, including SDN, SDDC, SD-WAN, NFV, and WIFI.
- Wide scope of protocols supported (SNMP, non-SNMP, Flows, gNMI, Telemetry, etc.).
- Network fault suppression, topology-based isolation, and correlation of events to outages.
- Visibility into the overlay and underlay of software-defined networks.
- Low overhead active testing and hop-by-hop diagnostics of the network paths.
- Fast identification of the circuit and the ISP accountable for underlay issues.
- Selenium-based synthetic transaction monitoring of web and SaaS applications.
- Performance reports provide service-owners with network and application visibility.
- End-to-end visibility for cross-cloud network insight.
- Continuous validation of available and utilized link capacity.
- Apdex score to baseline and evaluate QoE on applications.
- SLA breach evidence across the overlay, underlay, and applications.
- Comparisons across regions and technologies before and after deployments or changes.



End-to-End Visibility Across Hybrid Environments

Network Observability by Broadcom provides visibility across the entire network path, including on-prem, public cloud, and ISP networks. This helps pinpoint performance bottlenecks regardless of where they occur within the hybrid VCF environment. TruPath technology enables the solution to detect network performance issues and identify the location of the problem using a hop-by-hop diagnostic. TruPath also allows you to infer other metrics in real-time, such as the actual bandwidth delivered by your ISP and helps you pinpoint where degradation is occurring.

Simplified Troubleshooting in Complex Networks

Broadcom combines active and passive monitoring to offer comprehensive insights into network and application behavior. This simplifies troubleshooting in complex VCF deployments by providing correlated end-to-end data and speeding up root cause analysis. TruPath technology delivers the active monitoring capabilities designed to monitor a large quantity of network paths with as low overhead as possible. This approach lets you see the overall network path quality and the solution generates a continuous representation of a range of network behaviors over long periods of time, such as capacity, loss, jitter, latency, and MOS.

Proactive Issue Identification and Resolution

Network Observability by Broadcom allows for proactive monitoring of VCF environments, enabling IT teams to identify and resolve performance issues before they impact users. This reduces downtime and improves the reliability of VCF-hosted services. The solution enables emulating end users' paths and actions as they use an application. HTTP tests and Selenium-based test scripts are run periodically to determine any degradation in response time. The solution uses standard measurements that evaluate application responsiveness allowing you to gauge application performance in a user-centric manner.



For more information, please visit the following URL: <https://networkobservability.broadcom.com>