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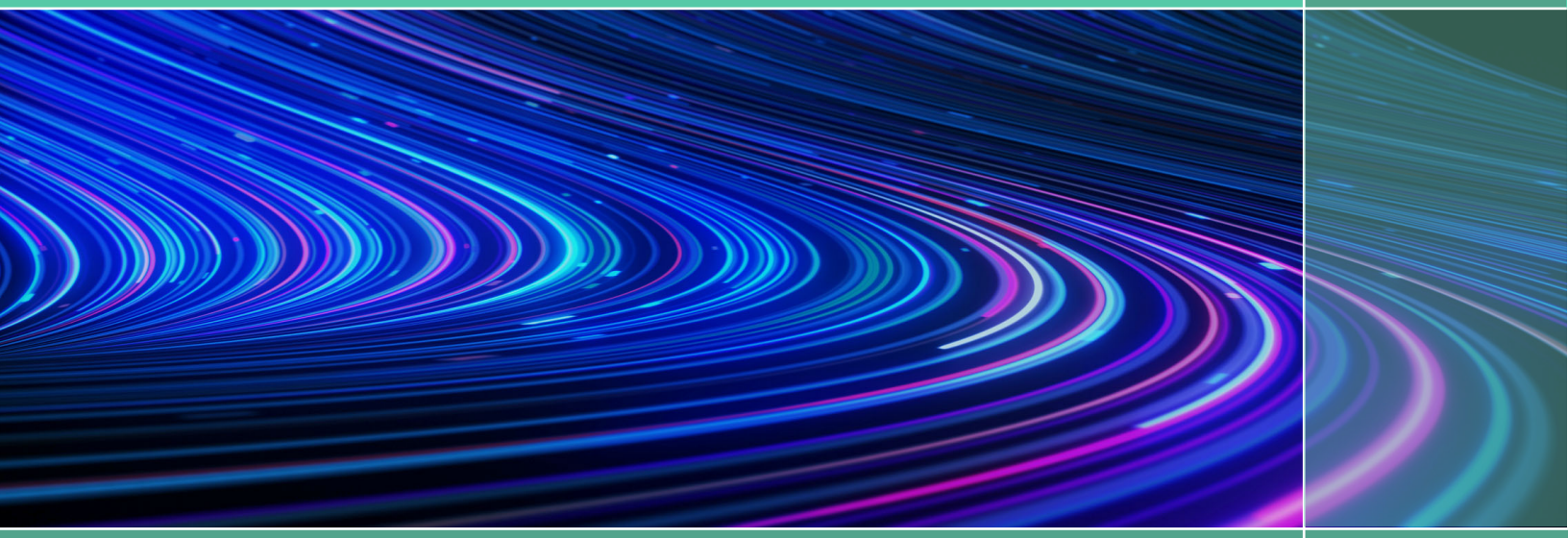
WHITEPAPER

Beyond Colocation Hubs: Network Modernization in the AI Era

for Executive Leaders



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Executive Summary

AI and cloud have changed what the enterprise network must deliver. The network is now a prerequisite for speed, security, and scale across users, applications, clouds, and partners. At the same time, many enterprises are approaching an inflection point as colocation footprints and hardware refresh cycles force major investment decisions.

Four forces are converging:

Enterprises are now hyper-distributed. Users, applications, data, and security controls are spread across branches, remote work, SaaS, multiple clouds, and partner ecosystems. That reality increases the need for consistent policy, segmentation, and governance across every environment.

Cloud-first is the operating posture, and the edge is being simplified. Enterprises are standardizing on cloud-first connectivity and internet-first patterns for many locations, which raises the bar for consistent policy, segmentation, and governance everywhere.

Multi-cloud and partner ecosystems are now structural. Connectivity requirements increasingly span multiple hyperscalers, SaaS platforms, and business partners, making “one network per environment” models harder to scale and govern.

AI increases the likelihood that infrastructure readiness becomes a scaling constraint. As AI workloads expand, organizations are increasingly sensitive to limitations in connectivity, data movement, and operational consistency. The risk is not AI alone, but the mismatch between AI demands and a legacy network operating model.

In this environment, network modernization is not a technical upgrade. It is an operating model decision that directly impacts:

- Time-to-market and expansion velocity
- Security posture consistency across environments
- Cost predictability and investment efficiency
- AI readiness, data movement, and application performance

This paper provides a practical blueprint for executive leaders to modernize networks with clear outcomes, measurable KPIs, and a phased path that reduces risk while accelerating results.

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Why Network Modernization is Happening Now

Refresh cycles are forcing the decision anyway

Colocation and data center network architectures were built around owned hardware, static topologies, and multi-year refresh planning. When those environments approach end of life, leaders face a binary choice:

- Reinvest in the same model and extend the operational burden, or
- Use the refresh as a pivot point to a cloud-delivered operating model built for distributed workloads shifting to a cloud-based fabric that positions infrastructure closer to users and branch sites.

Cloud and SaaS traffic patterns broke the old design assumptions

Cloud-first changes the dominant traffic flows. Users, applications, and data are no longer concentrated behind a single data center hub. They are distributed across regions, SaaS platforms, on-premises data centers, and multiple cloud environments. As a result, legacy WAN designs built around MPLS rings and data center backhaul are poorly aligned to how traffic actually moves.

Enterprises increasingly need globally distributed architectures where cloud connectivity and multi-cloud routing are built in, not bolted on. When connectivity and policy remain fragmented across environments, teams absorb the cost through higher latency, slower change cycles, and greater operational risk.

Hybrid work and edge trends increase complexity and traffic diversity

Post-pandemic IT architectures remain hybrid: global offices, remote workers, IoT deployments, and edge computing sites. Each adds new traffic paths and operational complexity. Workloads increasingly run in SaaS or cloud environments, while data and systems of record may remain on premises or at the edge.

The modernization imperative is driven by the need to support these dynamic scenarios securely and flexibly, with consistent policy and segmentation across every environment. In short, businesses can no longer tolerate static, siloed WANs. They require an automated fabric that extends everywhere.

AI workloads raise the bar on throughput, latency, and operational certainty

AI success depends on moving large volumes of data reliably between where data lives and where compute runs. It also depends on consistent security boundaries for sensitive datasets and models. When network constraints force exceptions, manual workarounds, or one-off designs, AI programs slow down and risk increases.

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What Enterprises Should Measure

Modernization should be measured in business outcomes, not device-level metrics.

Outcome 1: Faster execution and time to market

Track:

- Time to connect a new site, cloud region, or partner
- Time to roll out connectivity for a new application environment
- Number of handoffs and change approvals required per initiative

Outcome 2: Lower operational risk through consistency

Track:

- Policy and segmentation exceptions across environments
- Audit findings tied to network controls
- Time to isolate and contain high risk traffic

Outcome 3: Cost predictability and investment efficiency

Track:

- Three year total network cost of ownership
- Cost and time to add a new site, cloud region, or partner
- Share of spend tied to refresh and maintenance versus expansion

Outcome 4: AI readiness that scales without one-off designs

Track:

- Time to enable new data movement paths across environments
- Performance consistency across regions for key AI workflows
- Number of exceptions required to meet AI performance or security requirements

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Network Modernization KPI Alignment by Executive Role

The table below summarizes how network modernization maps to executive priorities. It highlights the outcomes each role cares about, the modernization benefits that drive those outcomes, and example metrics that typically improve as the network operating model becomes more consistent, automated, and globally distributed.through higher latency, slower change cycles, and greater operational risk.

Executive Role	Primary Business Priorities	What Modernization Improves	Example KPIs That Matter
CEO / Board	Growth, strategic agility, competitive differentiation	Faster expansion into new regions and channels. Faster launch of digital products and partnerships. Less execution friction for strategic initiatives.	Time to launch new services. Number of regions served. Partner onboarding time. Revenue contribution from new digital initiatives.
CIO / CTO	Delivery velocity, resilience, IT agility	Repeatable deployment of connectivity and policy across environments. Faster cloud and site rollout. Lower operational overhead and change risk.	Time to provision a site, cloud region, or partner. Change failure rate. Network change related incident frequency. Application experience and availability.
CFO	Cost predictability, capital efficiency, ROI discipline	Lower refresh driven capital spikes. Better cost transparency. Reduced operational overhead. Stronger alignment of spend with growth.	Three year total cost of ownership. Run rate versus budget variance. Cost to connect a new site, region, or partner. Reduction in refresh and maintenance burden.
CISO	Risk reduction, compliance, control consistency	More consistent segmentation and policy enforcement across environments. Better visibility and auditability. Faster containment and recovery.	Segmentation drift exceptions. Audit findings tied to network controls. Time to isolate high risk traffic. Mean time to detect and respond for network impacting incidents.
CAIO / AI leadership	AI readiness, data movement, performance certainty	More reliable data movement between data sources and compute. More predictable performance across regions. More consistent security boundaries for sensitive data.	Time to enable new data pipelines. Throughput and latency consistency between regions. AI workload SLA attainment. Time to scale AI environments.
COO	Operational efficiency, continuity, ecosystem execution	Fewer disruptions from network change. Faster integration of partners and operational sites. Higher uptime for operational workflows.	Uptime of connectivity dependent processes. Time to onboard a new partner or site. Reduction in operational delays attributed to connectivity issues.

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The Operating Model Shift: Network Infrastructure-as-a-Service

Network Infrastructure as a Service (NIaaS) is best understood as an operating model. Instead of building and operating a patchwork of devices, circuits, and location-specific designs, enterprises consume a cloud-delivered network fabric that provides:

- Centralized policy and segmentation
- On-demand connectivity across sites, clouds, and partners
- A consistent control plane for deployment, operations, and governance
- Consumption-aligned economics

NIaaS is not simply "better tooling." It changes responsibility boundaries and reduces the number of bespoke decisions required to deliver secure connectivity at scale.

Where Alkira Fits

Alkira provides a cloud-delivered network fabric operated through a centralized control plane. It delivers a service operating model, so enterprises consume network connectivity and policy as a managed cloud service rather than deploying and operating new hardware or software. This model is designed to help organizations move beyond colocation hub architectures by delivering consistent connectivity, segmentation, and governance across sites, clouds, and partners through one operating framework. The result is modernization without redesigning the network one location at a time, with centralized visibility to track measurable gains in delivery speed, risk reduction, and cost predictability.

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A Phased Blueprint Executives Can Govern

Phase 1: Align to business outcomes and define success

- Establish the modernization outcomes that matter most (time-to-market, risk reduction, AI readiness, cost predictability)
- Baseline the current KPIs so gains are measurable
- Define decision owners and governance cadence

Phase 2: Identify constraints and the "first conversion" target

- Inventory colocation footprint, cloud connectivity, partner connectivity patterns, and security segmentation gaps
- Select a first target that is visible and measurable, such as:
  - a new cloud region rollout
  - a partner onboarding program
  - a segment consistency initiative across clouds

Phase 3: Prove the operating model with a limited-scope deployment

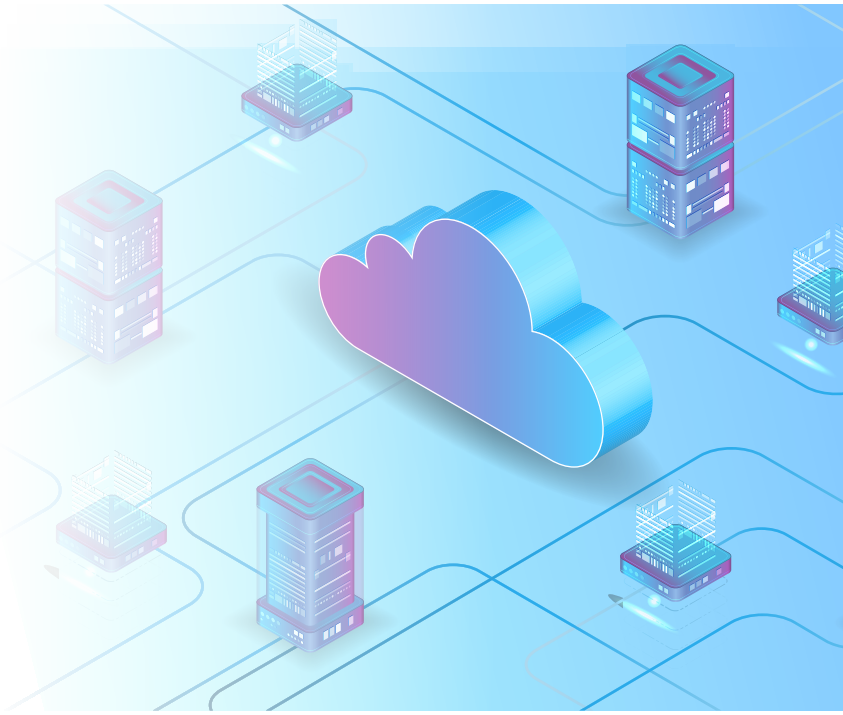
- Deploy the target architecture in one region or business unit
- Enforce segmentation and governance from day one
- Report early KPI movement to executive stakeholders

Phase 4: Scale and retire legacy complexity

- Expand region by region and use case by use case
- Consolidate tools and reduce one-off patterns
- Standardize onboarding for sites, clouds, and partners

Phase 5: Operationalize continuous improvement

- Shift operations toward policy-driven change
- Use telemetry and automation to reduce change risk and improve performance consistency
- Keep governance tied to business KPIs, not device-level metrics



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Conclusion

Alkira enables the shift from a hardware-centric network build model to a cloud-delivered service operating model. Through a centralized control plane, enterprises consume consistent connectivity, segmentation, and governance across sites, clouds, and partners without deploying or operating new hardware or overlay software at each location. This reduces redesign cycles, speeds onboarding for new sites and third parties, and makes policy changes repeatable and auditable at scale.

Network modernization is now a strategic decision because hybrid work, multi-cloud interconnection, and AI workloads have raised the minimum standard for enterprise connectivity. Alkira helps leaders meet that standard with a scalable operating model that improves execution speed, cost alignment, and risk control across a distributed environment.

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