SRv6 TEK INNOVATIONS

Products & Capabilities

Guiding Every Operator Through the Physics of the Network — Any Vendor, Any Era, Any Domain
Global / Remote Consulting & IT Staffing

Gyan Mishra | Founder & CEO / Fellow – Network Design



srv6tek-innovations.com · tek-racks.net (hands-on training) · tek-brains.net (certification)

Federal Government Contracting Ready: SAM Unique Entity ID EWZRVS4VP688 Entity Registration, CAGE CODE 25ZY4

Minority-Owned Small Business (MBE-Eligible)
NAICS 541512 | 541519 | 541611 | 541330 | 541511 | 541618 | 541519 | 517111 | 611420
SIC Codes: 7373, 8748, 7379, 7371
SIC Codes: 7373, 8748, 7379, 7371

IT STAFFING & TALENT PLACEMENT

We Build the Best Team — With our in-house Industry SMEs

Individual network engineering talent placement for public- and private-sector clients across every vertical. We don't scrape keyword-matched resumes — we hire high-potential engineers and groom them into elite, multi-vendor professionals under principal-architect mentorship.

1 Rigorous Selection

Hired for foundational excellence, problem-solving grit, and deep technical curiosity — not keyword matches.

2 Multi-Vendor Mastery

Hands-on fluency across Cisco, Juniper, Arista, Nokia, and open SONiC / FRR platforms — no single-vendor silos.

3 Architect-Led Mentorship

Mentored directly by principal-level architects and IETF protocol authors — fast-tracking real design judgment.

4 Cross-Vertical Deployment

Cross-trained on carrier-scale SP cores and compliance-driven enterprise and public-sector networks.

PUBLIC SECTOR

- Federal civilian & defense agencies
- State & local government
- Utilities & critical infrastructure (SCADA / OT)
- Secure, air-gapped & compliance-driven environments

PRIVATE SECTOR — ALL VERTICALS

- Service providers: Telco, ISP, MSO, 5G core
- Hyperscale cloud & AI data centers
- Finance & banking: low latency, PCI-DSS, GLBA
- Healthcare (HIPAA), retail & logistics, Fortune 500

PLACEMENT MODELS

- Strategic staff augmentation into your existing team
- Project SMEs: design validation & migration planning
- Long-term renewable contracts on your roadmap
- Individual talent placement — not an MSP

Collective brain trust: every engineer we place is backed by our principal architects and full internal engineering ecosystem — instant productivity, versatility over silos, and lower hiring risk.

CORPORATE OVERVIEW

Who We Are — The Bridge Between Protocol and Purpose

SRv6 Tek Innovations is an elite, boutique vendor-neutral network engineering consultancy specializing in the architecture, design, and optimization of next-generation IP infrastructures — a trusted partner and specialized subcontractor to Fortune 500 enterprises, Tier-1, Tier-2, Tier-3 (last mile fiber), all telecommunications providers all inclusive to big or small, cloud hyperscalers, financial institutions all private vertical markets & all public sector agencies.

COMPLEX ROUTING PROTOCOLS

SRv6 uSID · SR-MPLS · RSVP-TE · EVPN/VXLAN · BGP · IS-IS/OSPF · PCEP

The deep protocol mechanics most vendors gloss over.

MISSION-CRITICAL BUSINESS OBJECTIVES

Uptime · Total Cost of Ownership · Risk Reduction · Time-to-Revenue · Compliance

The outcomes C-suite and program leaders are measured on.

SRv6 TEK INNOVATIONS — WE BRIDGE THE GAP

Hyper-focused expertise in Segment Routing over IPv6 (SRv6), network programmability, and automated traffic engineering — translating protocol depth directly into business-aligned outcomes.

OUR FOUNDATION

Our Pillars of Success



OUR PROMISE

The SME of All SMEs — Your Guiding Light

SRv6 TEK Innovations isn't a single-protocol shop. We are deep subject-matter experts across every technology era your network has ever run on — and every one it's headed toward.



We meet your network wherever it lives on this continuum today — and guide it, one validated step at a time, to the SRv6 end state.

Roadmap Guidance

We help you plan the multi-year technology roadmap, not just design the next PO.

Continuous Optimization

We stay engaged to tune and optimize the network at every phase of the journey.

Every Step, Together

From your first RFP to your last legacy box, we're the constant in the room.

"Don't worry — we will be with you every step of the way."

CORE COMPETENCY

Full-Stack Routing & Transport Protocol Mastery

Deep, production-proven expertise across the entire traffic-engineering continuum — not SRv6 uSID alone.

MPLS

Foundational label-switched core transport — VPLS, H-VPLS, PWE3, G-ACh, GMPLS/MPLS-TP

RSVP-TE

Full-mesh auto-bandwidth LSPs, FRR link & node protection, cSPF, SRLG — sub-50ms convergence

SR-MPLS

Segment routing over MPLS core — SR Policy steering, Flex-Algo, inter-domain TE via PCE/SDN

SRv6 uSID

Micro-segment IPv6 source routing — header overhead reduction, TI-LFA, seamless end-to-end

VXLAN EVPN

BGP-only Multi-Site fabrics, Nexus ACI, Anycast/vPC BGW — 99.999% HA data center overlays

BGP / BGP-LU

AIGP, Prefix-SID, BGP FlowSpec v1/v2, RTBF, QPPB — inter-domain availability & security

IS-IS / OSPFv2/v3

IGP foundations for core & metro underlay design, dual-stack and IPv6-first transition

PCEP & Security

Cisco CNC / Juniper Paragon / Nokia NSP PCE control; BGPsec, ROA, ROV, ASPA, SASE

VENDOR-NEUTRAL EXPERTISE

Incumbent Vendor NOS & Hardware Platform Matrix

Every major closed-source NOS, every hardware family — the full incumbent stack SRv6 TEK Innovations designs and operates across.

VENDOR	NOS	HARDWARE PLATFORMS
Cisco	IOS (Classic)	Catalyst 2960 / 3560 / 3750 / 9200 · ISR 800 / 1900 / 4000
Cisco	IOS-XE	Catalyst 9300 / 9400 / 9500 / 9600 · ASR 1000 · ISR 4000
Cisco	IOS-XR (32-bit)	ASR 9000 · CRS-3 · NCS 5000 / 5500
Cisco	IOS-XR (64-bit)	NCS 540 / 5500 / 6000 · 8000 Series (8200/8201/8202/8800) · ASR 9000 (XR64)
Cisco	NX-OS	Nexus 3000 / 5000 / 7000 / 9000
Juniper	Junos (Classic)	MX 204 / 240 / 480 / 960 / 10000 · EX Series · SRX · PTX (legacy)
Juniper	Junos Evolved	PTX10000 Series · QFX5220 / 5230 · ACX7000 Series
Nokia	SR OS	7750 SR · 7950 XRS · 7450 ESS · 7250 IXR
Nokia	SR Linux	7220 IXR-D2 / D3 / D4 / H2 / H3
Arista	EOS	7050X · 7060X · 7280R · 7300X · 7500R · 7800R
Ciena	SAOS	5164 / 5170 · 8114 / 8118 / 8180 · Waveserver

VENDOR-NEUTRAL EXPERTISE

Disaggregated NOS & Whitebox Hardware Matrix

Open-source and merchant-silicon platforms — the whitebox / disaggregated stack that de-risks vendor lock-in.

VENDOR	NOS	HARDWARE PLATFORMS
Nvidia	Cumulus Linux	Mellanox Spectrum SN2000 / SN3000 / SN4000 / SN5000 Series
Nvidia	Onyx (NVOS)	Mellanox Quantum QM8700 / QM9700 (InfiniBand)
Open Source	FRRouting (FRR)	Any x86/ARM whitebox — Edgecore · UfiSpace · Delta · Supermicro · Dell
Open Source	SONiC	Edgecore AS7326 / AS7726 / AS7712 / AS9716 · Dell S5200 / Z9332 · Nvidia Spectrum · Cisco 8000 · Celestica
Arrcus	ArcOS	Edgecore · UfiSpace · Supermicro whitebox — Broadcom merchant silicon
IP Infusion	OcNOS	Edgecore · UfiSpace · Delta · Netberg — Broadcom Qumran / Jericho / Trident

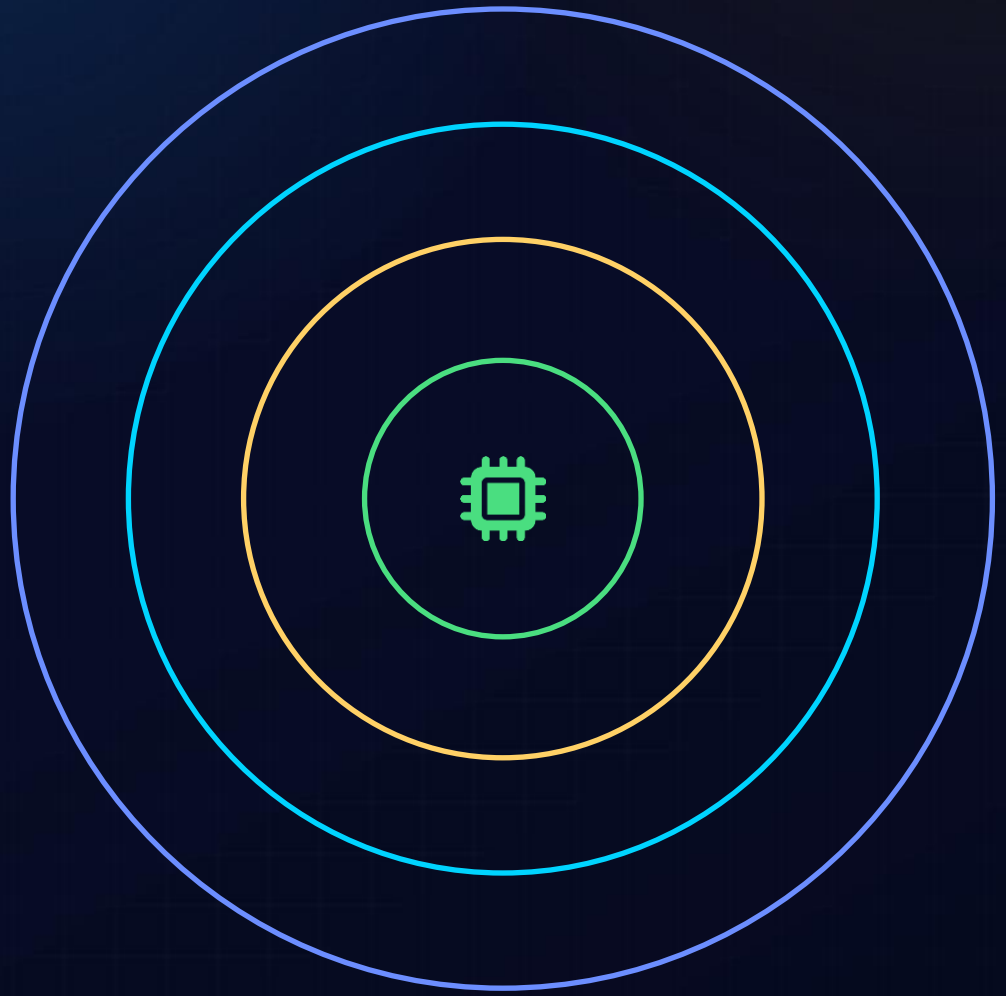
Merchant Silicon Underneath It All

Every disaggregated NOS above ultimately rides on the same handful of merchant-silicon ASIC families — Broadcom Trident / Tomahawk / Jericho / Qumran, and Nvidia/Mellanox Spectrum — which is exactly why the NOS layer, not the silicon, is the real point of vendor choice.

HOW WE THINK

Zoom Out, Zoom In — Every Layer, One Vantage Point

The same engineer who designs your global routing policy can trace a packet drop to the ASIC pipeline that caused it. That full-stack vantage point is our signature.



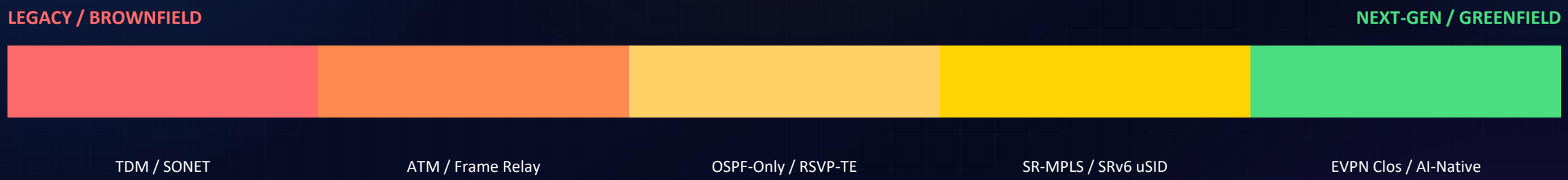
- **GLOBAL / MULTI-DOMAIN NETWORK**
- **CORE · METRO · DATA CENTER ARCHITECTURE**
- **PROTOCOL & CONTROL PLANE (SRv6 / BGP / IGP)**
- **SILICON / ASIC / PACKET FORWARDING**

Because most consultancies stop at the architecture diagram, and most vendors stop at their own box. We move fluidly between both — which is exactly what a true brownfield-to-greenfield migration requires.

BEYOND SRV6

Any Technology, Any Era — Green or Brownfield

SRv6 TEK Innovations isn't just about SRv6. It's about guiding operators through the physics behind every technology in their network — so we can support any stack, at any stage.



SRv6 TEK INNOVATIONS — EXPERTISE ACROSS THE ENTIRE SPECTRUM

Physics-First Diagnosis

We understand why a legacy technology behaves the way it does before we recommend replacing it.

Brownfield Migration Paths

Validated, staged migration plans that respect existing investment and operational risk tolerance.

Greenfield Best Practice

Full next-gen architecture design when operators are building from a clean slate.

THOUGHT LEADERSHIP

Thinking 10 Years Ahead — Leading, Not Following

Every paradigm shift on the prior slides was visible to us years before it became mainstream. That is the vantage point we bring to your roadmap.

2015

Chassis & RSVP-TE Era

Proprietary full-mesh MPLS cores — the industry baseline



2026 — TODAY

Disaggregation Inflection

SRv6 uSID, whitebox, CUPS everywhere — where SRv6 TEK leads now

2030+

100% Whitebox, AI-Native

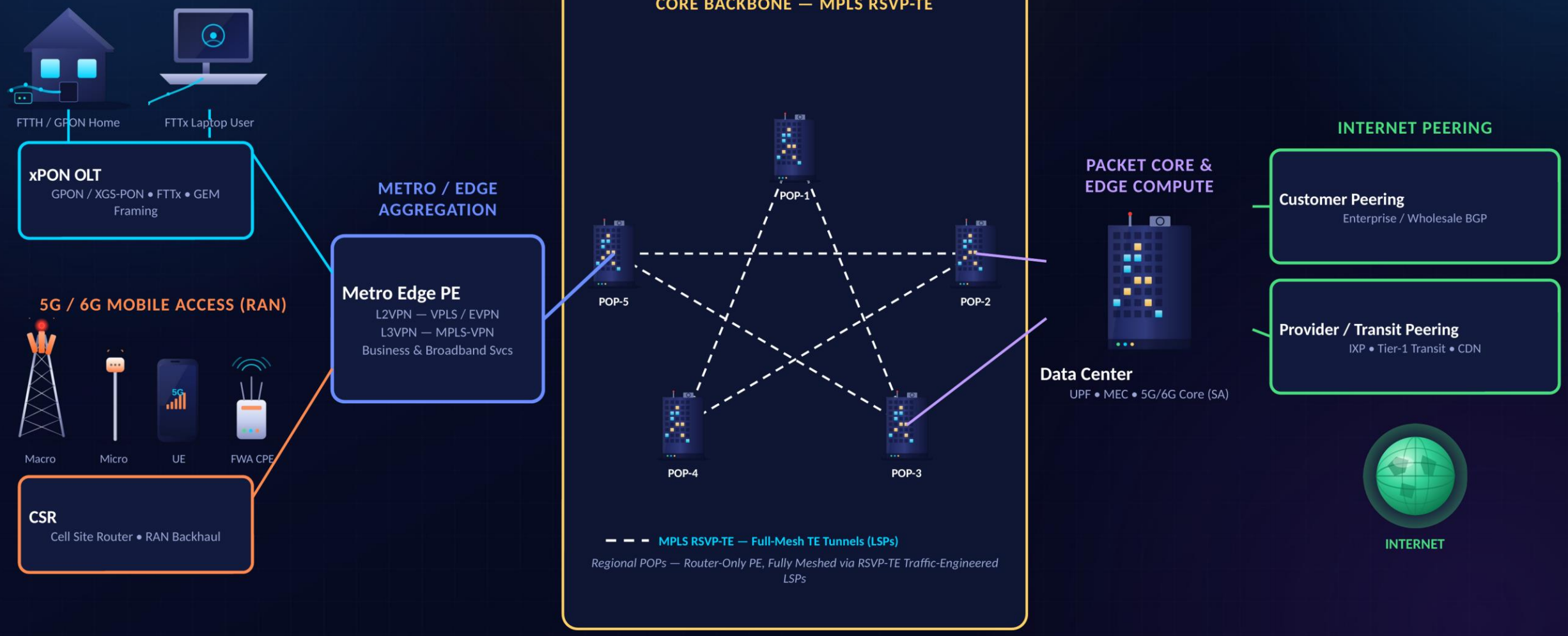
Vendor-neutral, fully disaggregated, self-driving fabrics

We don’t wait for the market to move — we design for where it’s going, so our clients arrive first.

TIER-1 MNO NETWORK ARCHITECTURE

Fixed & Mobile Access • Metro Edge L2/L3 VPN • MPLS RSVP-TE Core • POP Data Centers • 5G/6G Packet Core & MEC • Internet Peering

SRv6 TEK INNOVATIONS



MPLS RSVP-TE Tunnel (Logical Full-Mesh) · Metro / Access Backhaul Link · Dual-Homed DC / Peering Uplink

TIER-1 MNO NETWORK ARCHITECTURE

Fixed & Mobile Access • Metro Edge L2/L3 VPN • RON Coherent Optics / Seamless SRv6 Core • POP Data Centers • 5G/6G Packet Core & MEC • Internet Peering

SRv6 TEK INNOVATIONS

FIXED BROADBAND / WLN ACCESS



FTTH / GPON Home

FTTx Laptop User

xPON OLT
GPON / XGS-PON • FTTx • GEM Framing

5G / 6G MOBILE ACCESS (Open vRAN) MUP (Mobile User Plane)



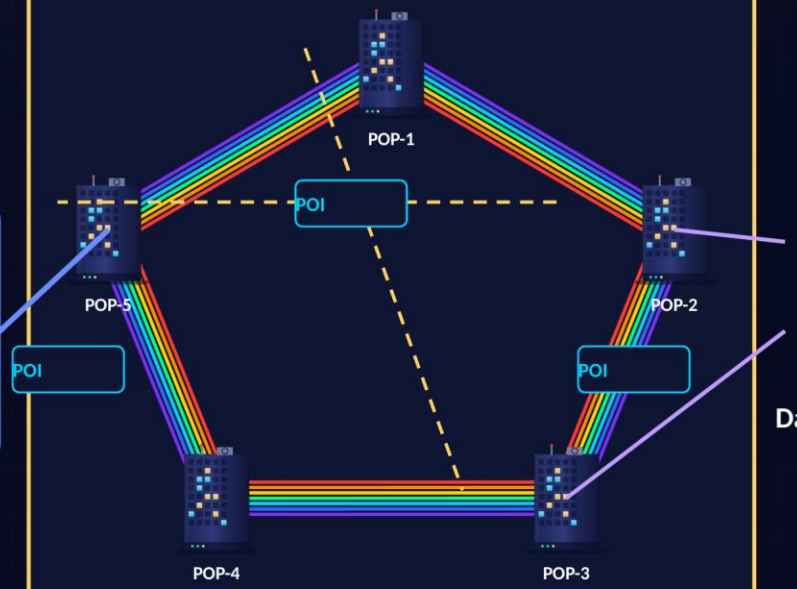
Macro Micro UE FWA CPE

CSR
Cell Site Router • RAN Backhaul

METRO / EDGE AGGREGATION

Metro Edge PE
L2VPN — VPLS / EVPN
L3VPN — MPLS-VPN
Business & Broadband Svcs

CORE BACKBONE — RON + SEAMLESS SRv6



RON — Coherent Pluggable λ (No ROADM, No Transponder)

Seamless SRv6 — Tactical TE (Not Full-Mesh)

Regional POPs — Router-Hosted Coherent Optics at the POI, IS-IS Routed Seamless SRv6

PACKET CORE & EDGE COMPUTE



Data Center
UPF • MEC • 5G/6G Core (SA)

INTERNET PEERING

Customer Peering
Enterprise / Wholesale BGP

Provider / Transit Peering
IXP • Tier-1 Transit • CDN



INTERNET

RON Coherent λ — Router-Hosted Optics (Physical)

SRv6 Tactical TE (Selective, Logical)

Metro / Access Backhaul Link

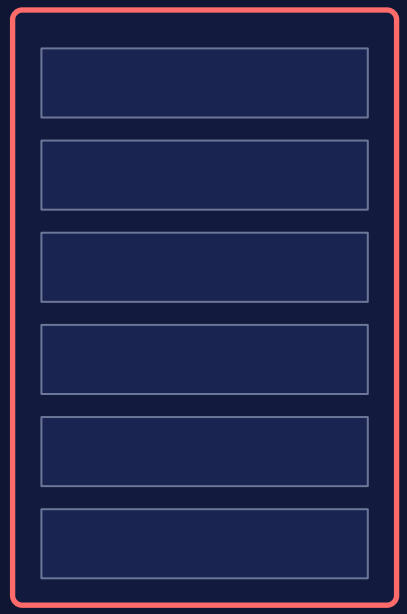
Dual-Homed DC / Peering Uplink

THE PARADIGM SHIFT

From Monolithic Chassis to Distributed Clos Fabric

Not just the data center — the same shift is coming to core, metro, and access. One big box is a liability; a scale-out fabric of small boxes is the future.

YESTERDAY



Monolithic Chassis — All Eggs in One Basket

Single point of failure. Vendor-locked backplane, slot cards, and software — capacity growth means forklift upgrades.

THE SHIFT

TODAY / TOMORROW



Distributed Clos Fabric — Scale-Out Everywhere, Not Just the DC

Pizza-box merchant-silicon switches, non-blocking leaf-spine — vs. HPC Dragonfly topologies, SRv6 TEK designs deterministic Clos fabrics from access to core to AI DC.

THE PARADIGM SHIFT

From Vendor Lock-In to 100% Whitebox Everywhere

SRv6 TEK Innovations designs for the end state — today. We help operators walk this path at their own pace, brownfield or greenfield.

1

Proprietary Chassis

Closed hardware + closed software, single-vendor lock-in

2

Merchant Silicon

Open silicon (Broadcom/Trident/Tomahawk) — still proprietary NOS

3

Disaggregated NOS

Open hardware, open software — SONiC, FRRouting, Cumulus

4

100% Whitebox + SRv6

Vendor-neutral control and data plane — any silicon, any box, any vendor

Where is your network today? SRv6 TEK Innovations meets operators at any stage of this journey and builds the validated migration plan to stage 4 — on your timeline, with your incumbent vendors in the loop.

THE PARADIGM SHIFT

Disaggregation Isn’t Just the Data Center

The same whitebox-plus-cloud-native pattern is converging across every domain of the network — access, mobile, core, and AI.



Access / WLN

vBNG whitebox data plane, cloud-native subscriber control plane



Mobile / 5G-6G

UPF whitebox data plane, cloud-native SMF control plane (CUPS)



Metro / Core

Pizza-box routers, Clos scale-out replacing chassis cores



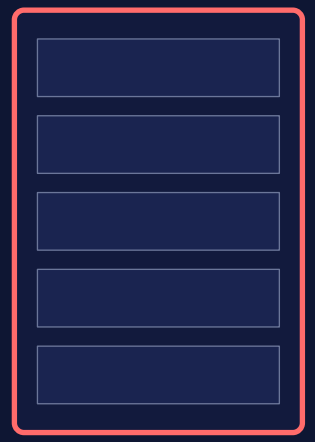
AI Data Center

GPU fabric on merchant silicon, SRv6 uSID static underlay

WLN Before → After: Disaggregated CUPS BNG

The exact software and hardware vendors powering the CUPS transition — control plane in the cloud, user plane at line-rate on whitebox.

BEFORE



Monolithic BNG Chassis

Cisco ASR / Nokia 7750 / Juniper MX — control + user plane co-located, single-vendor lock-in, scale-up only.

AFTER — DISAGGREGATED CUPS (TR-459)

CONTROL PLANE — CLOUD DC (K8s / Containers)

Software: RtBrick RBFS · netElastic vBNG · DriveNets Network Cloud · Benu (Ciena) vBSR · Radisys Connect Broadband · Cisco cnBNG CP

Session signaling, RADIUS AAA, DHCP, DB state — no user data touches this layer

USER PLANE — WHITEBOX LINE-RATE (PFCP / TR-459)

Hardware: Edgecore CSR320/CSR440 · UfiSpace S9600 · Delta Electronics — Broadcom Qumran2C / Jericho2 ASICs · RtBricks HW dataplane option

FD.io VPP + DPDK on x86 COTS — PPPoE/IPoE, CGNAT44, HQoS at line rate

xPON ACCESS — DISAGGREGATED OLT

Controller: VOLTHA (ONF) / ONOS · Sterlite STL dOLT · Radisys Connect PON — HW: Edgecore ASXvOLT16/ASGvOLT64 · Tibit/ADTRAN MicroPlug SFP+ OLT

GPON / XGS-PON / 25GS-PON — OpenFlow-modeled multi-vendor optics

DEEP DIVE — FIXED BROADBAND

WLN Data Center Fabric — VXLAN Today, SRv6 uSID + Slicing Tomorrow

The CUPS control and user plane both sit on a data center fabric — here's how that fabric itself evolves.

TODAY — VXLAN EVPN FABRIC

- BGP EVPN Type-2/Type-5 control plane over a leaf-spine Clos underlay
- VXLAN encap/decap at every leaf — fixed VNI-per-tenant segmentation
- One flat QoS treatment — no native way to carve a deterministic low-latency slice
- Multi-Site BGW stitches DCs together — additional overlay-of-overlay complexity

TOMORROW — SRv6 uSID FABRIC + SLICING

- One SRv6 uSID underlay replaces VXLAN encap end-to-end — no separate overlay protocol
- URLLC Slice: Flex-Algo plane #1 — low-latency, jitter-bounded path for latency-sensitive control/session traffic
- High-Bandwidth Slice: Flex-Algo plane #2 — max-bandwidth path for bulk subscriber data
- Native multi-site reachability — no BGW stitching, one SID space everywhere

THE COMMON PATTERN

CUPS Everywhere — vBNG and 5G Core Share the Same DNA

Control-and-User-Plane-Separation isn't a 5G invention — it's the architectural pattern SRv6 TEK Innovations applies across every access technology.

FIXED BROADBAND — vBNG	MOBILE — 5G / 6G CORE
CONTROL PLANE Cloud-native, Kubernetes-orchestrated subscriber management — session setup, policy, AAA	**CONTROL PLANE (SMF)** Cloud-native, Kubernetes-orchestrated session management — PDU sessions, policy, mobility
USER PLANE (vBNG-UP) Whitebox merchant-silicon data plane — PPPoE/IPoE termination, SRv6-forwarded subscriber traffic	**USER PLANE (UPF)** Whitebox merchant-silicon data plane — GTP-U termination, SRv6-forwarded subscriber traffic

Same architectural DNA, different access technology — SRv6 TEK Innovations designs the CUPS split once, and applies it everywhere.

DEEP DIVE — MOBILE

WLS Before → 5G/6G CUPS: Open vRAN Midhaul Breakout

The wireless mirror of the WLN transition — baseband disaggregates into cloud-native functions split across the fronthaul/midhaul boundary.

BEFORE — MONOLITHIC eNodeB / gNodeB

- Integrated baseband + radio in a single proprietary cabinet
- One RAN vendor end-to-end — Ericsson, Nokia, or Huawei locked in
- Fixed-function DSP hardware — no independent software upgrade cycle
- Scale-up only: more capacity means a bigger, more expensive cabinet

5G / 6G CUPS — OPEN vRAN

- eCPRI fronthaul split — Radio Unit (RU) stays at the tower, everything else moves to compute
- vDU (Distributed Unit): near-edge cloud, F1 interface to the vCU, sub-microsecond timing on VPP + DPDK
- vCU (Centralized Unit): fully cloud-native, Kubernetes-orchestrated, scales horizontally in the regional DC
- Massive scale-out: any merchant-silicon x86/ARM server pool, any RAN software vendor per TIP/O-RAN interfaces

DEEP DIVE — MOBILE

WLS Phase 3 — SRv6 Mobile User Plane + C-MUP Controller

The end state: session ID encoded directly in the IPv6 SID — no GTP-U tunnel overhead, no hairpin back to a central DC.



No trombone back through a centralized DC — C-MUP steers traffic to breakout the moment it's optimal.

SRv6 M-GTP Encoding

The 5G session ID is encoded directly into the IPv6 SID — no bulky GTP-U tunnel overhead across the transport core.

Lawful Intercept & Accounting, Natively

C-MUP performs LI and usage accounting inline at the controller — no need to hairpin or trombone traffic back to a central DC to satisfy compliance.

Flex-Algo Network Slicing

URLLC slice (low-latency plane) and high-bandwidth slice (max-throughput plane) carried natively across the same SRv6 fabric.

THE NEXT FRONTIER

5G NTN & Space — The Future Tier-1 Global Backbone

LEO satellite mesh isn't a niche access technology — engineered correctly, it's a credible alternative to sub-sea cable for global Tier-1 backbone diversity.

3–10ms	<50ms	0	6–10
LEO Propagation Delay	TI-LFA Recovery	Ground PCE SPOF	Pre-Seeded Orbital Windows

Distributed Hybrid PCE

On-orbit local PCE for near-zero-latency decisions + ground PCE policy plane — TLE-based pre-seeding means satellites operate autonomously if ground link drops. Zero ground-controller SPOF.

TSN Strict Scheduling + Strict BFD

Doppler-induced delay variation (1–3ms/pass) tuned via 300–500ms strict BFD timers and IEEE 802.1Qbv scheduling — prevents false-positive path recomputation storms.

Free-Space Optics Laser Mesh

Terabit-class inter-satellite laser links, stateless SRv6 source-routed forwarding — ground-computed segment lists, zero onboard route discovery.

Radiation-Hardened ASIC Verification

Hardware-native FEC and SRv6 header integrity checks at wire speed — cosmic-ray bit flips corrected before propagating downstream.

THE UNIVERSAL PATTERN

Every VXLAN Use Case Can Move to SRv6 — Any Size Network

Enterprise campus, service provider access, or IXP fabric — if it runs VXLAN today, it can gain native network slicing and URLLC on SRv6 tomorrow.

Enterprise Campus

Hub-and-spoke FlexVPN & GET VPN today, converging onto VXLAN EVPN fabrics — SRv6 gives campus and branch the same slicing primitives as a Tier-1 core.

SP Access — WLN & WLS

CUPS control/user plane data centers already run VXLAN EVPN fabric — the same SRv6 uSID + Flex-Algo slicing migration applies directly.

IXPs — VXLAN L2 Peering Fabrics

Internet exchange VXLAN L2 fabrics can move to SRv6 for the same reasons — simpler underlay, native traffic engineering, no separate overlay protocol.

If it runs VXLAN today — big or small — SRv6 TEK Innovations can migrate it to SRv6 and unlock native network slicing, URLLC, and high-bandwidth traffic engineering, everywhere.

AI DATA CENTER

AI Factory Backend Fabric — Static SRv6 uSID + NVIDIA MRC

Rail-reduced, all-to-all GPU fabric design eliminating hotspots and maximizing job-completion-time (JCT) sync across HPC training clusters.

STATIC SRv6 uSID UNDERLAY

- IGP-free, source-routed — no dynamic control plane in the fabric core
- Any-HPC-to-any-HPC across every leaf and spine via statically-allocated SIDs
- Multi-leaf-per-spine reduced-rail topology for maximum resiliency
- Deterministic SRv6 TE path placement eliminates traffic hotspots

NVIDIA MRC — MULTIPATH SPRAY

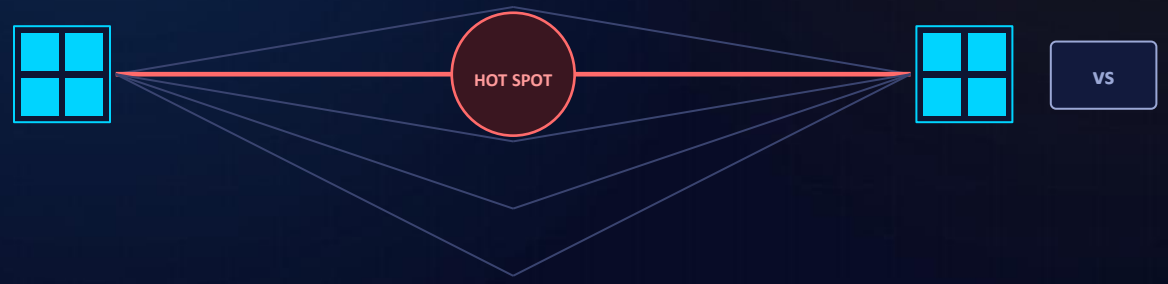
- Hundreds of entropy values per RDMA connection — near-ideal bisection bandwidth
- SRv6 header carries per-packet path selection directly in the NIC
- Microsecond failover — per-EV path health routes around bad links instantly
- Production on NVIDIA Spectrum-X; contributed to OCP with AMD, Broadcom, Intel, Microsoft, OpenAI

Eliminating ECMP polarization at the source: conventional ECMP hashes one flow to one path, stranding bandwidth on every other link. SRv6 + MRC sprays every path and plane evenly — production-proven on Nvidia Cumulus Linux, SONiC, and Nvidia Onyx across Mellanox / InfiniBand switching.

AI DC WITH MRC

NVIDIA MRC — Eliminating ECMP Polarization

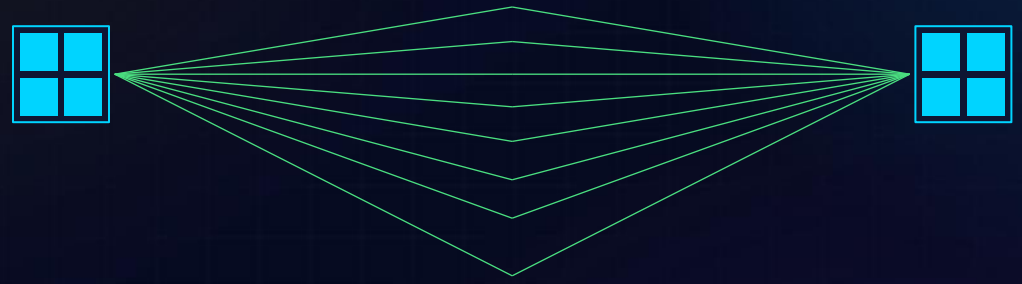
CONVENTIONAL ECMP



One flow, one path — all packets hash to a single ECMP branch, bandwidth stranded on every other link. The result is massive flow polarization resulting in sever hot spots and traffic stalling.

VS

NVIDIA MRC — MULTIPATH SPRAY



One QP, hundreds of entropy values — every path and plane used evenly, near-ideal bisection bandwidth.

How MRC does it

Packet Spraying

Hundreds of paths per RDMA connection, reassembled in-order at the receiver

Entropy Value (EV)

Each packet carries an EV; the sender rotates a pre-generated EV set per plane

SRv6-Carried Path

The NIC can encode path selection in the SRv6 header itself

Microsecond Failover

Per-EV path health lets MRC route around a bad link without waiting on the underlay

Developed for and in production on NVIDIA Spectrum-X, contributed to OCP with AMD, Broadcom, Intel, Microsoft, and OpenAI.

DATA CENTER

EVPN / VXLAN Fabrics at Massive Scale

From ACI experimental pilots to nationwide multi-site BGP-only production fabrics — full-lifecycle data center overlay design.

BGP-Only Multi-Site VXLAN EVPN

Cisco Multi-Site HPC MSDC design with full Nexus Dashboard (NDFC) automation — L2 pushed to the host, circumventing outages.

Massively Scalable Data Center

BGP-fabric-based, BGP-only data center POD architecture — isolated PODs for IGP isolation and future IGP phase-out.

SRv6 uSID Extended to Compute

Fabric extended to L3 VPN vPE with fine-grained SR-TE steering — resolving resiliency issues, 25% latency improvement.

ACI & Security Posture

Cisco Nexus 9k ACI fabric deployment across experimental compute clusters, increasing baseline data security posture.

99.999% high-availability objective achieved · **25%** reliability increase · **30%** network fault reduction via automation

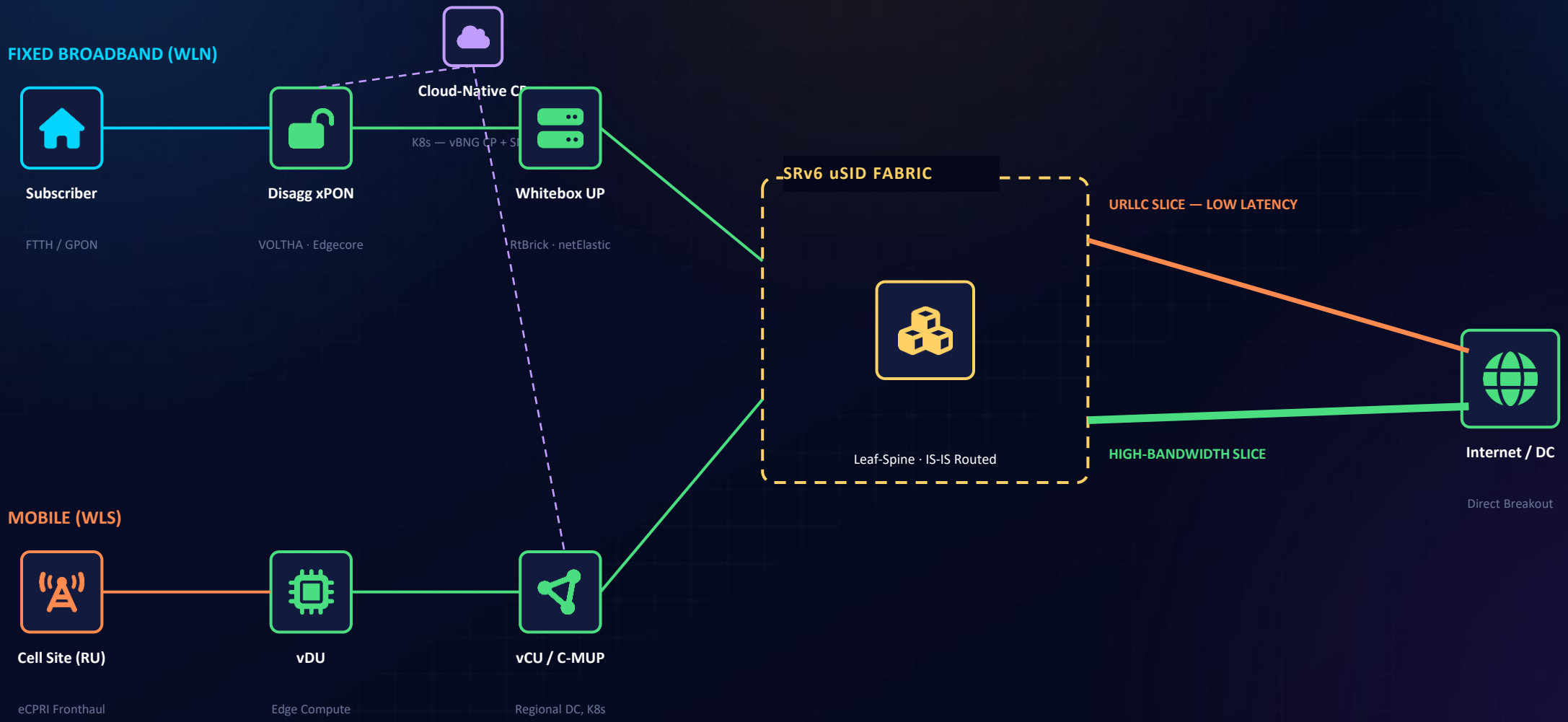
NETWORK ARCHITECTURE — BEFORE

WLN & WLS Today: Single-Vendor, Closed Hardware + Software



NETWORK ARCHITECTURE — AFTER

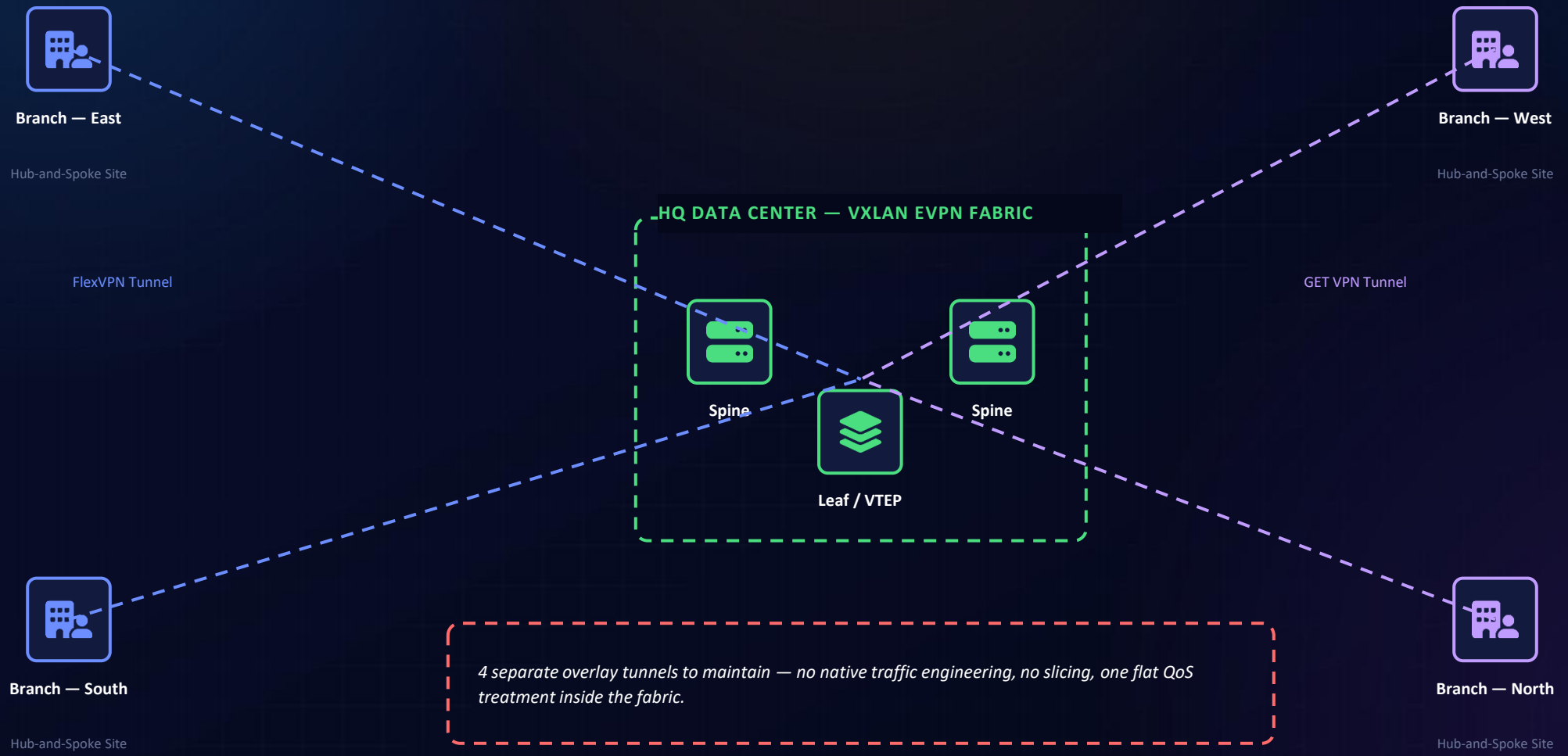
WLN & WLS Disaggregated: One SRv6 uSID Fabric, No Vendor Lock



ENTERPRISE — BEFORE

Enterprise Campus: Hub-Spoke FlexVPN / GET VPN + VXLAN EVPN

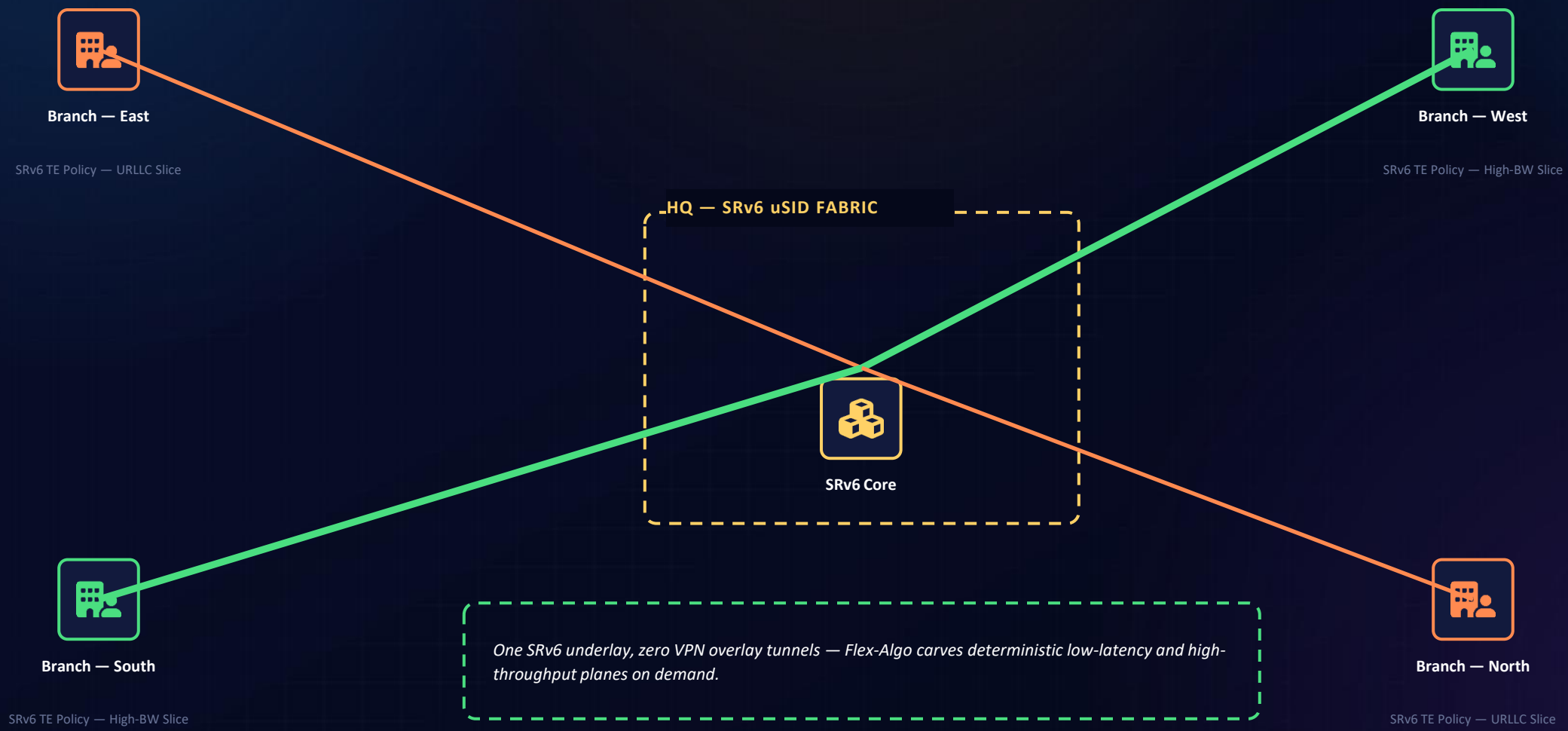
Every branch tunnels back to headquarters over a separate VPN overlay — the data center fabric itself is a standalone VXLAN EVPN island.



ENTERPRISE — AFTER

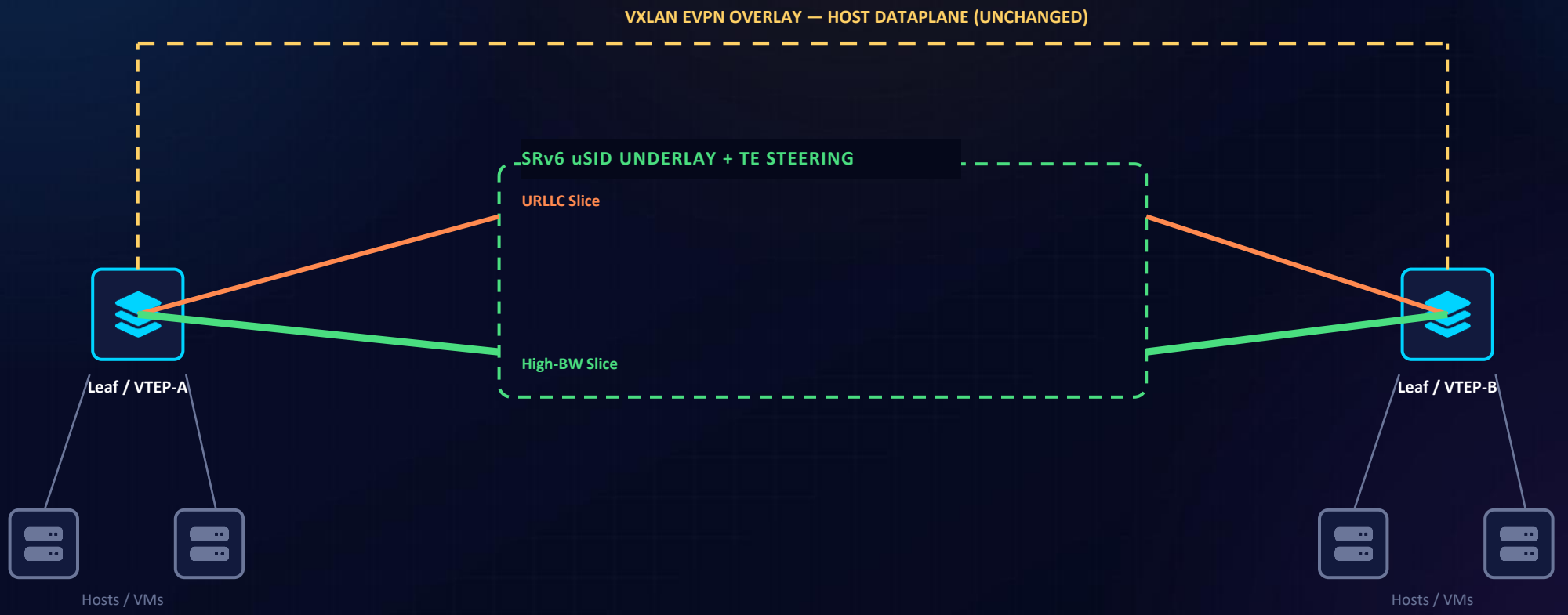
Enterprise Campus on SRv6: One Fabric, Native Slicing

No separate VPN overlay — SRv6 TE policies replace the tunnels, and the same fabric now carries a URLLC slice and a high-bandwidth slice end to end.



The Twist: SRv6 Underlay, VXLAN EVPN Still the Host Dataplane

Hosts keep their familiar VXLAN EVPN overlay — but the transport underneath is now an SRv6 TE-steered underlay, so every VXLAN flow inherits native network slicing.

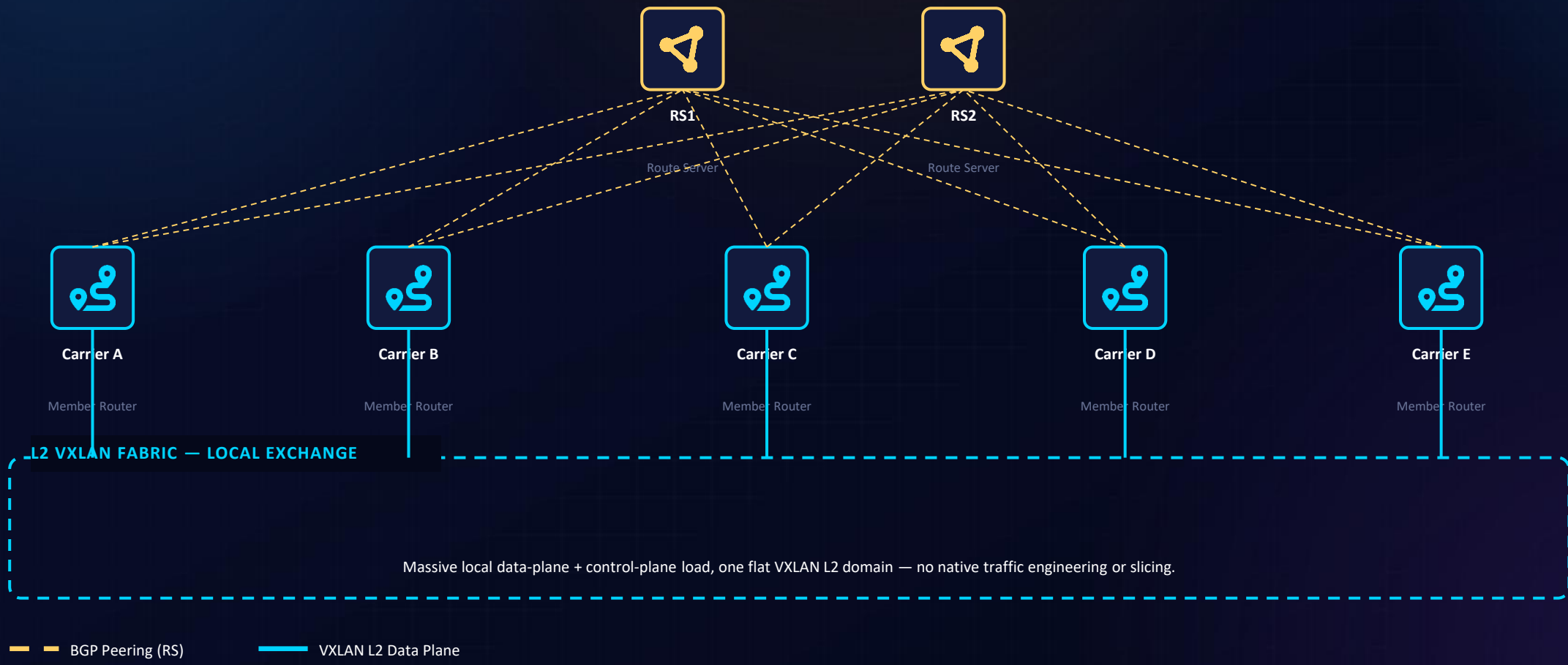


Same VXLAN VNIs, same EVPN control plane at the edge — SRv6 TE simply decides which Flex-Algo plane each VXLAN-encapsulated flow rides across the underlay.

IXP / CARRIER HOTEL — BEFORE

Route Server Hub-Spoke over a Standalone VXLAN L2 Fabric

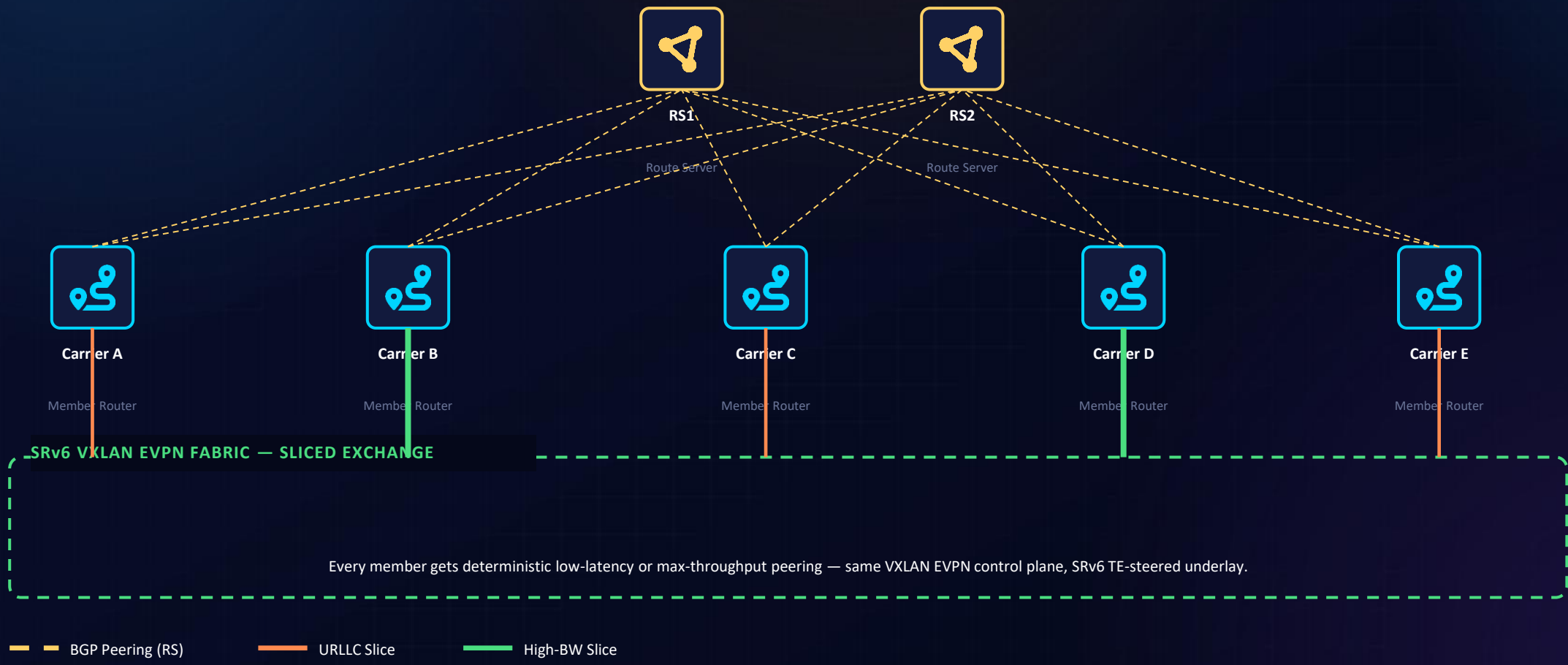
RS1/RS2 route servers hub BGP peering to every member carrier — the local exchange fabric itself carries tremendous data and control plane load as one flat VXLAN L2 domain.



IXP / CARRIER HOTEL — AFTER

Same Hub-Spoke Peering, Now SRv6 VXLAN EVPN + Slicing

RS1/RS2 peering is unchanged — but the exchange fabric is now SRv6 VXLAN EVPN, giving every member carrier a URLLC low-latency slice and a high-bandwidth slice on demand.



MARKETS SERVED

Who We Serve — Every Vertical, Every Channel

VERTICAL MARKETS

- Public sector agencies (federal, state, defense)
- Fortune 500 enterprises, all verticals
- Tier-1, Tier-2, and Tier-3 service providers
- Cloud hyperscalers & content delivery (CDN) providers
- IXPs, COLO & carrier-hotel providers
- Financial institutions & other regulated industries

CHANNEL & ECOSYSTEM PARTNERS

- Routing & switching vendor incumbents
- Disaggregated NOS channel partners (SONiC, FRR, etc.)
- VARs & system integrators closing complex SP deals
- Primes and subcontractors — public & private sector
- We fill the technical gap for VARs, integrators & Primes
- Strategic vendor alliances across the multi-vendor ecosystem

HOW WE ENGAGE

Engagement Models

Resource Augmentation

Embed senior SRv6 / SR-MPLS / VXLAN design expertise directly into your professional services or delivery teams on demand.

Subcontracting & Prime Support

Specialized SME subcontractor to Primes and system integrators on public-sector and enterprise RFP responses and delivery.

Consulting & Digital Twin

End-to-end architecture consulting backed by 1:1 digital-twin validation before any production change.

Hands-On Training & Certification

tek-racks.net — live hands-on lab training. tek-brains.net — 15 formal certification tracks covering network engineering, software engineering & dba engineering

SIGNATURE CAPABILITY

Digital Twin Modeling — De-Risking Every Deployment

To solve the critical visibility gap in modern infrastructure, SRv6 TEK Innovations builds complex 1:1-at-scale digital twin models of customer networks — providing design optimization testing, validation, and proactive "what-if" scale testing within CI/CD pipeline regression tracks prior to production deployment.

1:1 Network Modeling

AWS EC2-hosted digital twin, transparent 100% markup pricing — full-scale replica of customer topology.

What-If Scale Testing

Proactive regression testing of design changes before they ever touch production hardware.

CI/CD Regression Tracks

Design optimization validation embedded directly into the customer's automation pipeline.

WHY IT MATTERS

Every SRv6, SR-MPLS, and VXLAN migration this deck describes was validated in a digital twin before a single production packet was touched. It is the same rigor Gyan applied to Verizon's nationwide core, data center, and AI fabric modernization — now available as a standalone engagement.

Available via srv6tek-innovations.com

TRUSTED BY PEERS & LEADERS

What Clients & Colleagues Say

> *"Gyan is an expert with network technologies, actively involved in global industry organizations to develop new forward-looking concepts and standards."*

Sebastien Jobert, VP Global Infrastructure, Cloud, Network & SRE

> *"If you need an enterprise class engineer who can deliver a future proofed network, Gyan is your engineer of choice."*

Lalit Gupta, AD for Security Implementation & Operations, Verizon

> *"Gyan's technical mastery, business acumen, and mentoring would facilitate building any world class Network Engineering design team."*

Christopher Ediae, Associate Director, Network Design, Verizon

> *"His technical mastery of SRv6 and complex core/data center architectures is unmatched... his capacity to lead and define the future direction of network technology."*

Michael Miller, Director of Network Design, Verizon

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