NLNOG 2025

The No-Bullsh*t Way to Build Infrastructure that Lasts

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6 stages of network de-sh*tification

- 1 The Problem: Industry's Infrastructure Delusion
- 2 Our Philosophy: Resilience-First Approach
- 3 Real-World Proof: Three Critical Case Studies
- 4 The Framework: Three Engineering Rules
- 5 The Fix: What Needs to Change
- 6 The bottom line: Build Like it Matters



The Industry's Infrastructure Delusion

Everyone says they're resilient—until they're not

The Taiwan Wake-Up Call

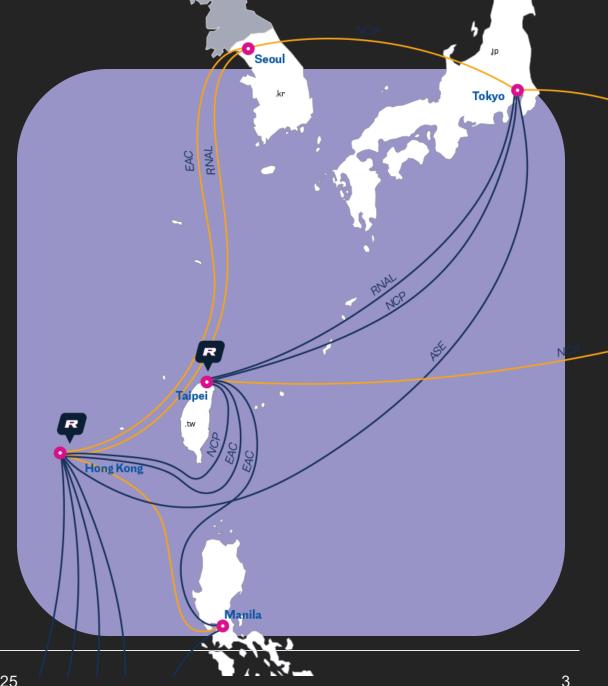
Tier 1 providers were stalled for weeks—and sometimes months.

The Consolidation Trap

Legacy systems + route consolidation = fragility.

The Disconnect

Marketing maps do not reflect operational reality.



Resilience

RETN's Resilience-First Philosophy

Resilience is our foundation, not a feature.

Five genuinely diverse, vendor-separated cables to Taiwan

TRANSKZ terrestrial Asia—Europe route: 60–70% traffic migrated during Red Sea cuts

Designed to operate under war, catastrophe, and cable choke points



Real-World Proof

Case Study: Taiwan Cable Cuts 2025

Multiple Subsea Cuts

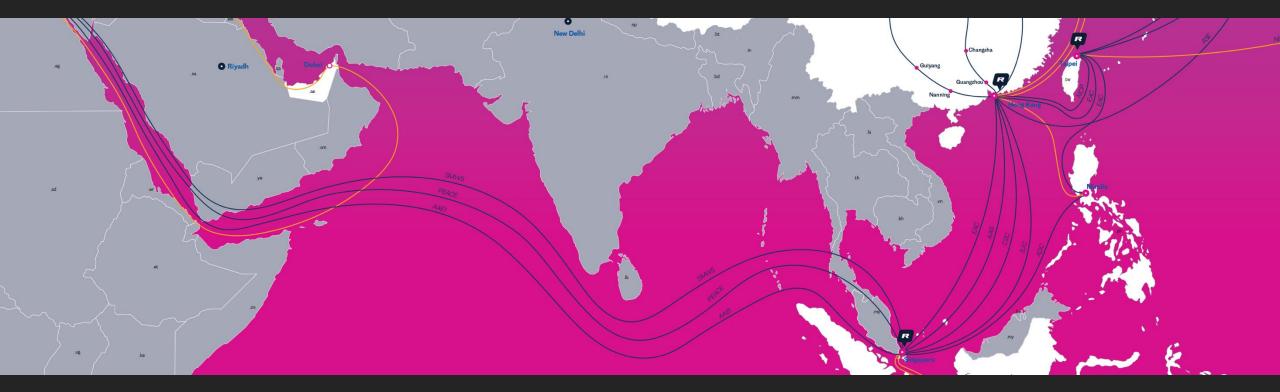
2025 (two suspected sabotage)

RETN's Response

70-day repair period \rightarrow stable latency

Tier 1's Response

Tier 1 providers: degradation for weeks



Case Study: Red Sea 2024 (& 2025; here we go again)

Multiple Cuts

~70% subsea EU–Asia capacity loss

TRANSKZ Solutior

RETN instantly moved 60–70% of traffic to TRANSKZ

Uptime Priority

Maintained 99.9% uptime



Case Study: Ukraine War

Immediate Response

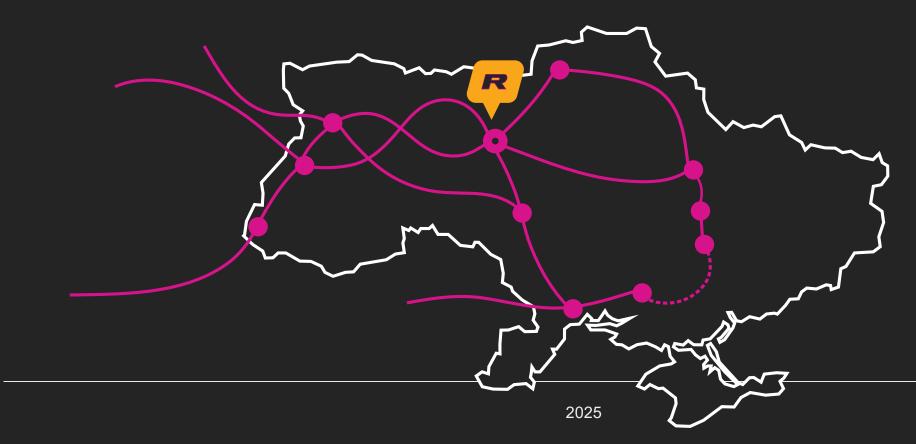
Capacity-swap deal within a week of invasion

New Routes

New southern Kyiv route to bypass exposed paths

Autonomous PoPs

72-hour autonomous PoPs; prepositioned spares



The Rules

Three Engineering Rules

Engineering Principles for When Lives and Businesses Depend on You



Build for Risk

Geo, supplier, and infra diversity; automated reroute, MTTR <6 hrs.



Design Smart, Not Big

Unique routes (e.g., Milan-Zurich bypass); lean team, global reach.



Optimise Efficiency

400GbE rollout, vendor energy benchmarking, low watts/Gbps.

Four Fixes to Stop the BS

1.

Redefine the Language

"Resilience" needs its meaning back

2.

"If it seems to good to be true..."

Stop buying solutions which are obviously underengineered

3.

Demand Transparency

Shared accountability for infra truth-telling

4.

Educate and Inform

Customers must know their Plan B

Challenging Industry Bad Habits

Three Industry Myths that Kill Real Resilience



The Tier 1 Fallacy

Bigger isn't always better



The Ownership Illusion

DWDM ownership without control just means false security



The Impossible Promise

100% SLA guarantees are marketing fiction

Build Like it Matters

Substance Over Spin

Less buzzwords, more backbone.

Design for Disaster

Assume failure is inevitable. Design for the bad day, not the good day.

Failure has a cost

Network costs money. Sometimes a failure costs much more.

Thank You

