MDNOG 2026

Digital Resilience in Practice: Keeping Network Running when Disruption Hits

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2026

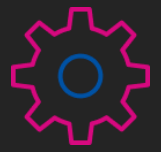
The World Is Less Predictable — Even When Better Connected: 5 Types of Threats Telecom Operators Face in Disaster Scenarios

TELECOMMUNICATIONS IS THE FOUNDATION OF PEOPLE'S LIVES.

WAR AND NATURAL DISASTERS ARE REALITY, NOT EXCEPTION.



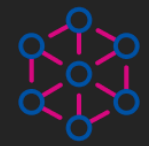
Physical Infrastructure Destruction



Long term Blackouts



Equipment faults and lack of spare

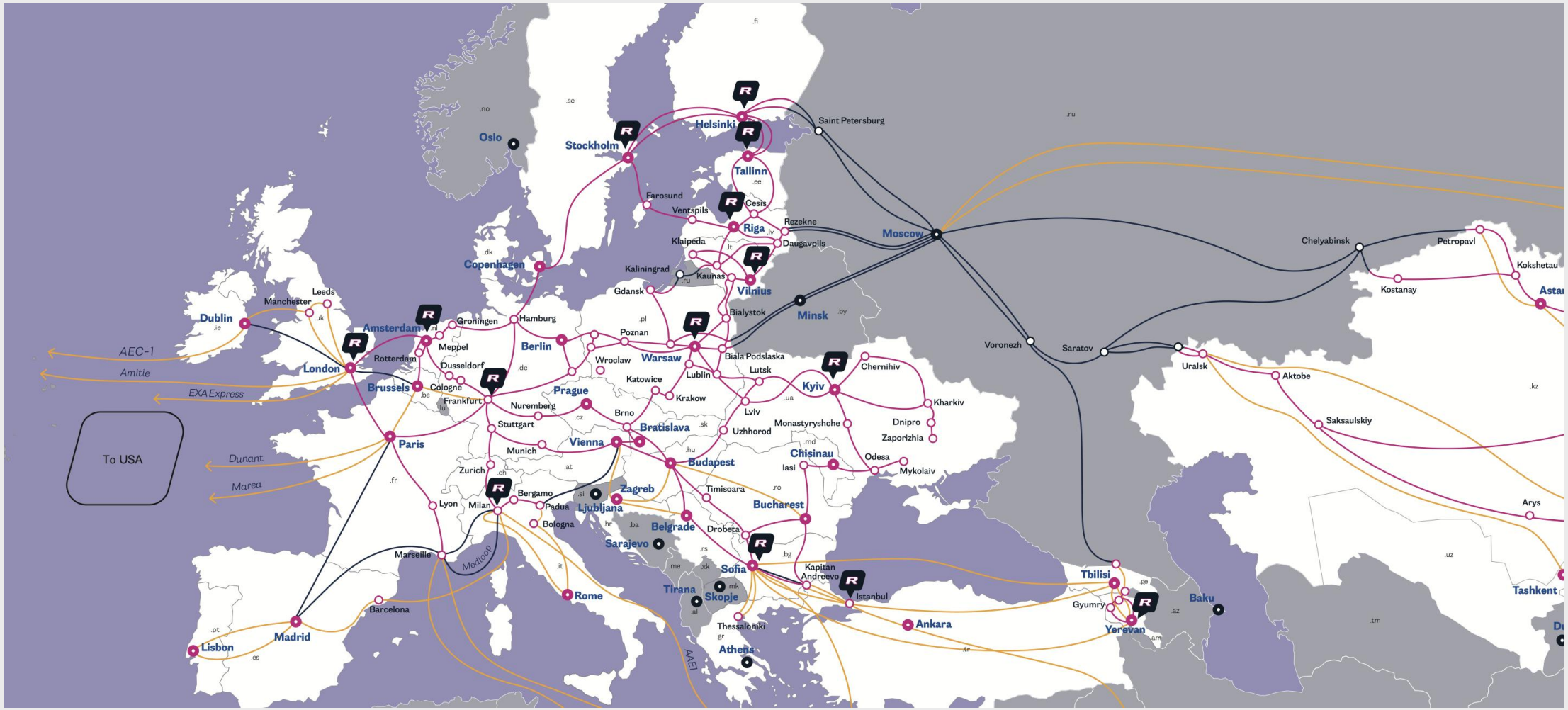


Cyber threats and DDoS attacks



Limited Access & Loss of Qualified Teams

RETN – EURASIAN NETWORK PROVIDER OF CHOICE



Ukraine War: Disruptions Is Ongoing

Unexpected Start

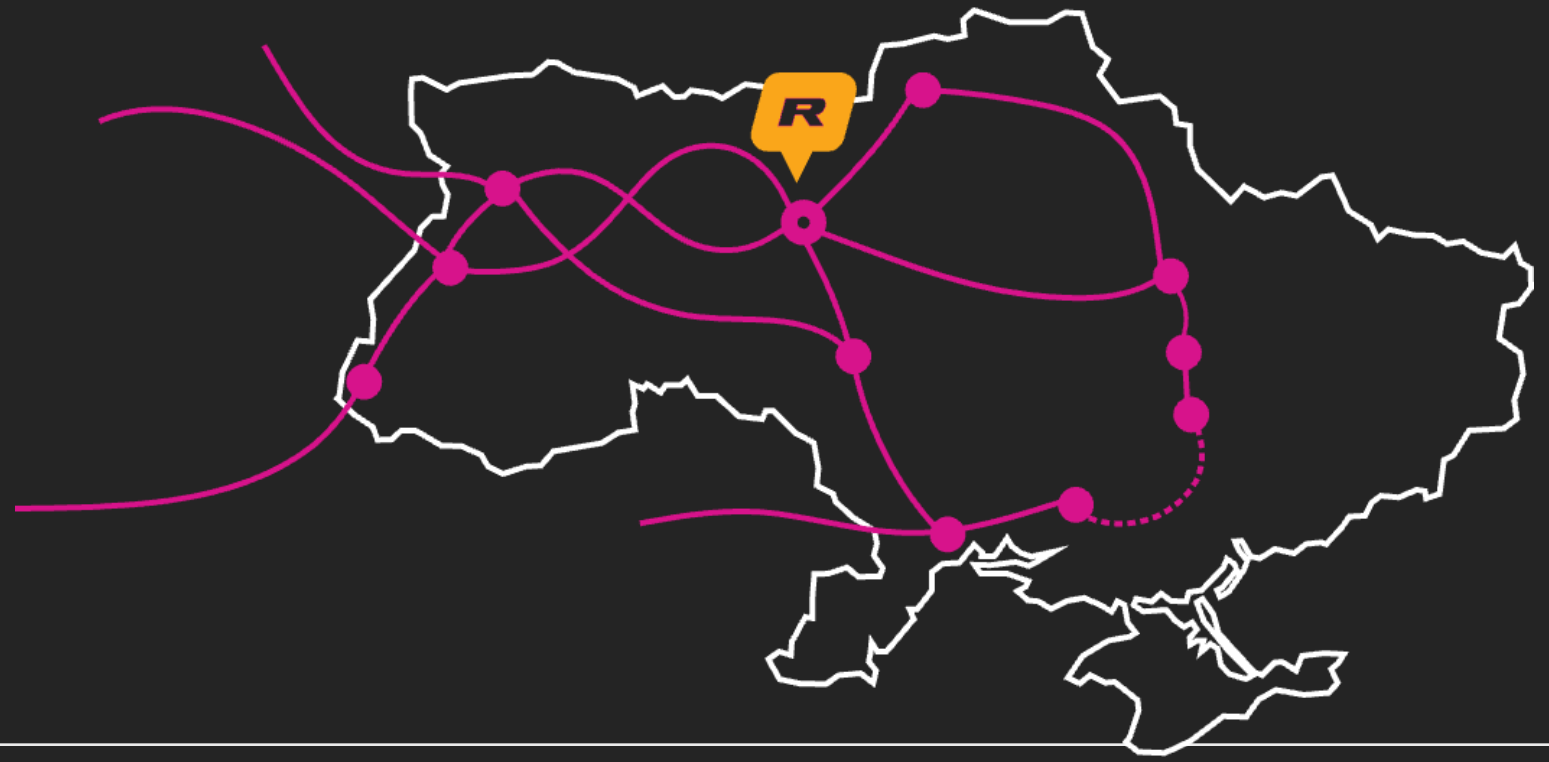
Europe had no recent experience of full-scale war

Unpredictable development

Multiple damages appear at the same time, in different locations

No Known End

You can't plan long-term



Challenge #1 Physical Infrastructure Destruction:

Fibre cuts & PoP/city isolation from the rest of the network

Diversify Beyond the Basics

- Two diverse routes to key locations are sometimes not enough
- Deploy at least two core PoPs in every key city you operate
- Protect metro networks too, not only international capacity

Build Flexible Capacity

- Keep spare IP/MPLS capacity at 2:1 or higher. It is not wasted CAPEX.
- FlexGrid + OTN: reroute or protect most capacity in minutes, with no site visit.
- Plan spectrum carefully.

Keep Investing, Keep Partnering

- Never stop network development, even in a crisis
- Protect your DWDM network with leased capacity. It is a smart move, not a weakness.

Challenge #2 Blackouts: lack of external power to the site

72-hours of ILA’s autonomous operation

Constantly monitor UPS battery health and its capacity. Any issue - replace straight away

Use high-capacity batteries for ILA site so it can operate up to 3 days without external power

Keep your diesel generator with a full tank, always

Challenge #3: Equipment faults and spare management

Free Ports, Ready to Use

- Pre-cable as many ports as you can.
- Never let a router run out of spare ports or slots.

Redundancy on Site

- Two DWDM chassis at the same location is never a bad idea.
- Keep transceivers, patch cords and materials on site where possible.

Stock Close to the PoP

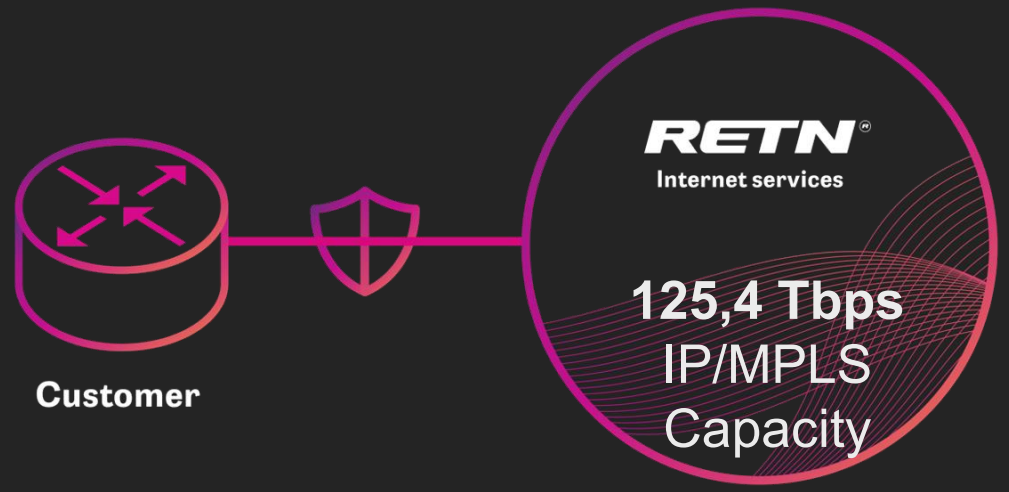
- Keep common hardware near your PoPs.
- Instant-bandwidth transponders activate new services in minutes.

Challenge # 4: Cyber threats & DDoS attacks

ANTI DDOS SOLUTION SHOULD BE ACTIVATE AND SET UP IN ADVANCE

ALL SOLUTION WORKS:

- DDoS Mitigation Services
- Deprioritization of traffic
- Blackhole Community
- Extended Blackhole Community
- FlowSpec
- Hybrid Cloud for own data
- Cold Backup of network design



Challenge #5.

Limited Access & Loss of Qualified Teams

Network is PEOPLE.

- Train your team
- Have disaster network plans — and test them yearly
- Assign clear ownership of decision in a crisis
- Build systems that support your people
- Cybersecurity is a daily practice

Resilience Is a Mandatory Requirement for Operators

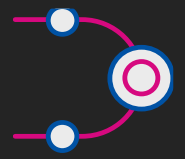
ENGINEERING PRINCIPLES WHEN LIVES AND BUSINESS DEPEND ON YOU



Build with risk in mind

Geo, supplier, and infrastructure diversity.

Automated rerouting of NxTbps in under 6 hours.



Design smart, scale rationally

Unique cross-border optical paths

Low latency by design



Optimise efficiency

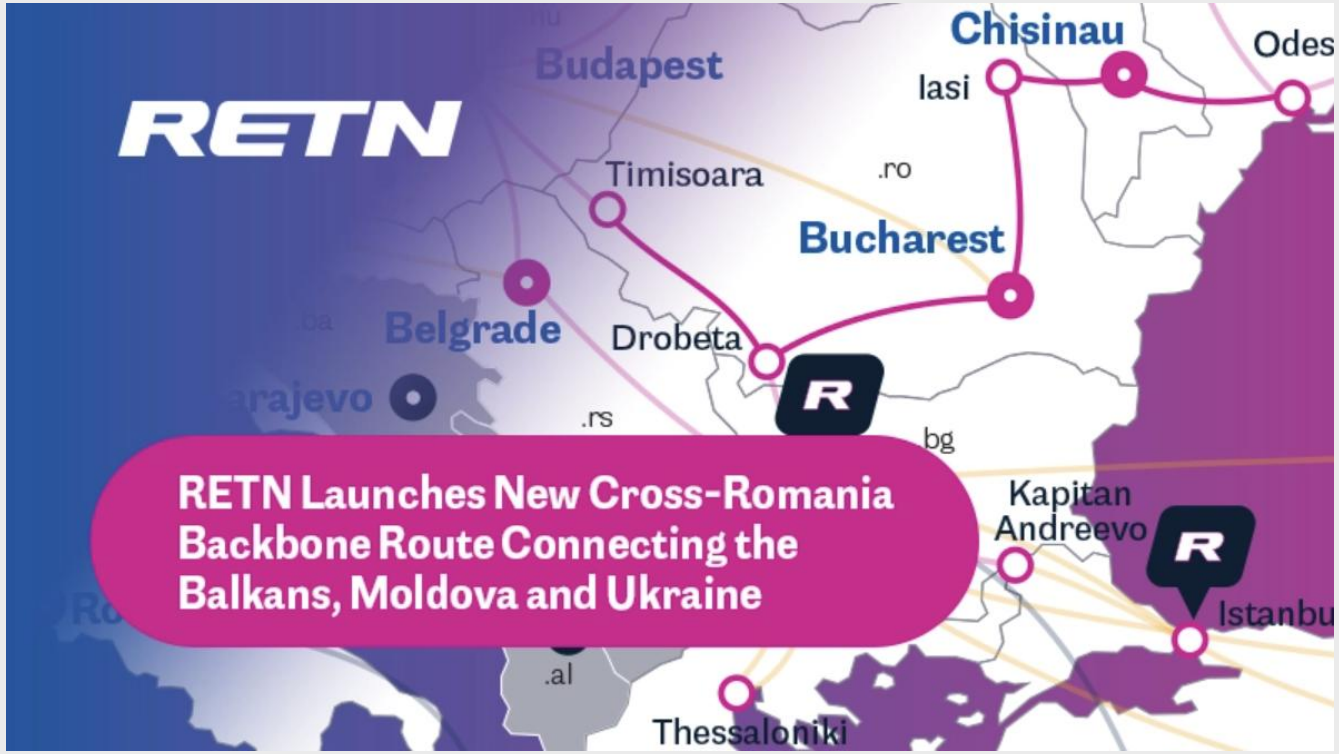
400Ge deployment

Low power consumption per Gbps

Diversity and network redundancy is a must

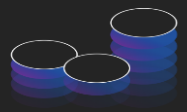
WHAT ELSE IS NEEDED?

- Coherent network, 400Ge from day one
- A variety of vendors
- Enough capacity
- Smooth flow of operations
- Agility to grow with you, or to keep up with your growth



NSP: MUST DO for Digital Resilience

MISSED OPPORTUNITY IS THE REAL RISK



Network diversity

3 independent physical routes



OTDR automation

Proactive fault response



No single-supplier dependency

New cross-border and unique optical routes



In-house engineering expertise

Combining AI-driven network intelligence with deep operational engineering



Deliberate multi-vendor strategy

Extended delivery lead times create new risks for rapid scaling



Diversified operational model

NOC 24x7 Riga & Hong Kong

Local teams

This is the Moment

Plan to Disruptions

Assume failure is inevitable

Design for Disaster

Design for the bad day, not the good day.

Develop for Life

Be ready to grow and scale

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