



CLOUDMON[®]

CLOUDMON NETWORK ASSURANCE SERVICE

***Network Connectivity Assurance Amid Red Sea
Cable Disruptions***



Cloudmon Network Assurance: Keeping 5G Slices Reliable



Overview

Submarine cables carry over 95% of global internet traffic, making them critical infrastructure for international communications. The Red Sea is one of the world's busiest choke points for these cables, connecting Europe, Asia, and Africa. Recent incidents of cable damage in the Red Sea have disrupted connectivity for millions of users across multiple countries, affecting businesses, cloud applications, and everyday internet use.

For Internet Service Providers (ISPs), this event highlights the urgent need for proactive network assurance mechanisms to minimize downtime, reroute traffic intelligently, and maintain service-level agreements (SLAs) under unpredictable conditions.

Problem Statement

- **Cable Vulnerability:** Submarine cables are susceptible to damage from anchors, natural disasters, or geopolitical conflicts.
- **Limited Redundancy:** With so many systems concentrated in the Red Sea corridor, damage creates widespread impact across multiple providers.
- **Customer Impact:** Users experience degraded connectivity, higher latency, and in some cases service outages, directly affecting enterprise operations, cloud access, and financial transactions.
- **Operational Pressure:** ISPs face the dual challenge of restoring service continuity while managing customer expectations and SLA commitments.

Cloudmon Network Assurance in Action



How It Works

The disruption highlights why ISPs must evolve from reactive fault management to proactive assurance. Customers, enterprises, governments, and individuals, will increasingly choose providers that can guarantee service continuity even in high-risk environments. Building resilience through assurance solutions creates a strong market differentiator.

Intelligent Detection & Triggering

- Assurance continuously measures latency, jitter, packet loss, and throughput across all available routes.
- When it detects degradation linked to a submarine cable outage, it raises an alert and triggers the SDN/orchestration layer.
- Automatic Rerouting is then executed by the ISP's traffic engineering systems (SDN, BGP, MPLS, etc.), often without manual intervention.

Capacity Sharing & Partnerships

- Assurance validates performance across alternate carrier paths when capacity is borrowed through reciprocal agreements.
- Helps partner carriers plan better by showing clear performance data and identifying affected networks through ASN tracing during outages.

Prioritized Traffic Management

- Assurance helps classify and monitor traffic classes to ensure mission-critical services (banking, government, healthcare) receive priority.
- Provides visibility into when non-essential traffic (video, bulk transfers) is throttled or deprioritized.

Cloudmon Network Assurance- Business Impact



Solution Benefits

Real-Time Assurance & Transparency

- Assurance tools give both ISPs and their customers clear visibility into performance metrics, rerouting paths, and restoration timelines.
- Customers receive proactive notifications about disruptions, impact, and mitigation actions — reducing complaints and SLA disputes

Long-Term Resilience Planning

- Performance analytics from Assurance highlight chronic chokepoints, helping justify investments in new submarine cables or terrestrial alternatives.
- Assurance integrates with automated detection and traffic engineering, accelerating incident response during future crises.

Key Distinction:

- Assurance = Detects, measures, and triggers.
- ISP SDN/Traffic Engineering Systems = Perform rerouting and load balancing automatically once Assurance identifies the issue.

Benefits

- For ISPs: Protect brand reputation, meet SLA obligations, and position as a reliable connectivity provider despite global risks.
- For Enterprises: Assurance that mission-critical workloads remain stable even when primary routes fail.
- For End Users: Continuity of essential services and reduced frustration during large-scale outages.