Navigating the path to 5-Nines for data center networks

99.999%

Charting the journey to unmatched reliability with Nokia

In today's data center networks, the journey to reliability is more critical than ever. Recent studies and customer insights reveal that achieving reliability isn't just about hardware alone – it's about software and optimizing operations. With human error a persistent challenge, modern operations tools enhanced by AIOps are emerging as a key solution in the journey to 5-Nines reliability.

Reliability: The non-negotiable of modern data center networks

Reliability is critical to modern data center networks, yet poor software quality and human error continue to disrupt operations. While automation offers promise, adoption remains limited.

SURVEY FINDINGS [1]:

86%
of respondents ranked reliability as the top criterion.

45%
of organizations report silent failures due to poor software quality.

80%
of respondents say human error impacts service continuity.

Operations: Must focus on eliminating human error

Downtime isn't just costly, it's disruptive. Addressing operations-related issues is the most impactful way to minimize outages and ensure seamless data center performance.

RECENT STUDY FINDS:

The most
significant contribution to downtime comes from operations-related issues.[2]

1 hour
of unplanned downtime would create a major customer-facing service disruption for 74% of organizations.[1]

Investment focus[1]

- Investing in AI/automation tools
- Improving incident response
- Rebuilding network fabrics

Nokia: Charting the path to reliability

Nokia is leading the way in data center network reliability with innovative features that deliver real results.

RELIABILITY STUDY FINDINGS [2]:

Nokia SR Linux plus EDA delivers

96%
reduction in downtime, with

99.999235% (5.1 nines)
availability compared to 3.7 nines with legacy mode of operations.

- **Nokia SR Linux and Event-Driven Automation (EDA) integration**
  Purpose-built for reliable automation, offering seamless and guaranteed operations.
- **Leaf-spine architecture:**
  Layer-3 fabrics for enhanced scalability and performance.
- **Digital twin technology:**
  Test and validate future deployments safely and efficiently. These features drive faster implementations, fewer inconsistencies, reduced outages, and measurable cost savings.

Start your journey to 5-Nines reliability today. Click here to learn more.

1 Futurum, The Data Center Networking Imperative: Key Trends Driving the Next Era of Data Centers, **September 2025**

2 Bell Labs Consulting in collaboration with Futurum, Data center fabric reliability study, **2025**