

SOLUTION BRIEF

Nokia Managed Services for Field Intelligence and Sustainability Services

Outsmart your network. Automate to save.
Focus on growth.

NOKIA

As energy consumption rises and operations become increasingly more complex, the strongest networks will be the ones that evolve intelligently, autonomously, and sustainably.

Nokia Managed Services for Field Intelligence and Sustainability Services transforms these ambitions into reality – bringing network performance and environmental responsibility together to create business value while actively protecting the planet.



The importance of Field Intelligence and Sustainability operations

Today, organizations everywhere are under mounting pressure to perform sustainably. Customers and compliance regulators expect better services that are also good for the planet – and that’s why Field Intelligence and Sustainability operations have become increasingly central to telecommunication providers and mission-critical enterprise and public sector customers.

These two operational frontiers sit at the intersection of performance, cost, and ethical responsibility – offering the ability to shape how networks function now as well as how resilient they’ll be tomorrow. So, even though off-site monitoring and energy management might feel like overwhelming considerations for many internal teams already dealing with complexity, security, and connectivity, Field Intelligence and Sustainability operations simply can’t be ignored.

What’s more, the potential for scalable improvement is vast. Up to 30% of total network OPEX is caused by energy consumption. And 60-80% of that network energy is spent at the cell site – a cost that only increases as mobile traffic continues to grow by up to 30% year on year. That’s why the most effective strategy is to target optimization at the network’s source: its remote infrastructure.

This is an important move, because when remote sites aren’t intelligently managed or expertly analyzed, inefficiencies start to appear throughout the rest of the network. Misalignments in field dispatching, power outage response, energy usage, or spare-part scheduling can quickly stack up – leading to unnecessary site visits, prolonged downtime, problematic emissions, and higher costs.

For all these reasons and more, Nokia Managed Services for Field Intelligence and Sustainability Services is here to help.

Challenges

15-30%

of total network OPEX is caused by energy consumption

60-80%

of network energy is consumed at the cell site (base stations)

+30%

Strong yearly mobile traffic growth continues

The Nokia Promise:

From outsourcing to outsmarting Managed Services Approach

The Nokia Managed Services portfolio is designed to deliver peace of mind to our customers. We take a comprehensive, AI-driven next-gen approach to network management, equipping telecommunication providers and mission-critical enterprise and public sector customers with a competitive, automated, connected, and cost-efficient network – without the stress and strain of handling it all in-house.

At its core, the Nokia promise is founded upon partnership and trust. Our customers outsource their operational responsibility to us, and in return we provide the skill, scale and confidence needed to manage their infrastructures effectively. By blending our extensive industry insight and global reach with our mature suite of AI-driven automation tools, we operate networks that are seamless, predictable, and ready for the challenges of tomorrow.

Our services also prioritize sustainability by automating workflows and optimizing energy consumption in an intelligent, commercially viable way. We strive to help customers transition towards agile, innovative, environmentally-responsible network operations – for their convenience, confidence, and future.

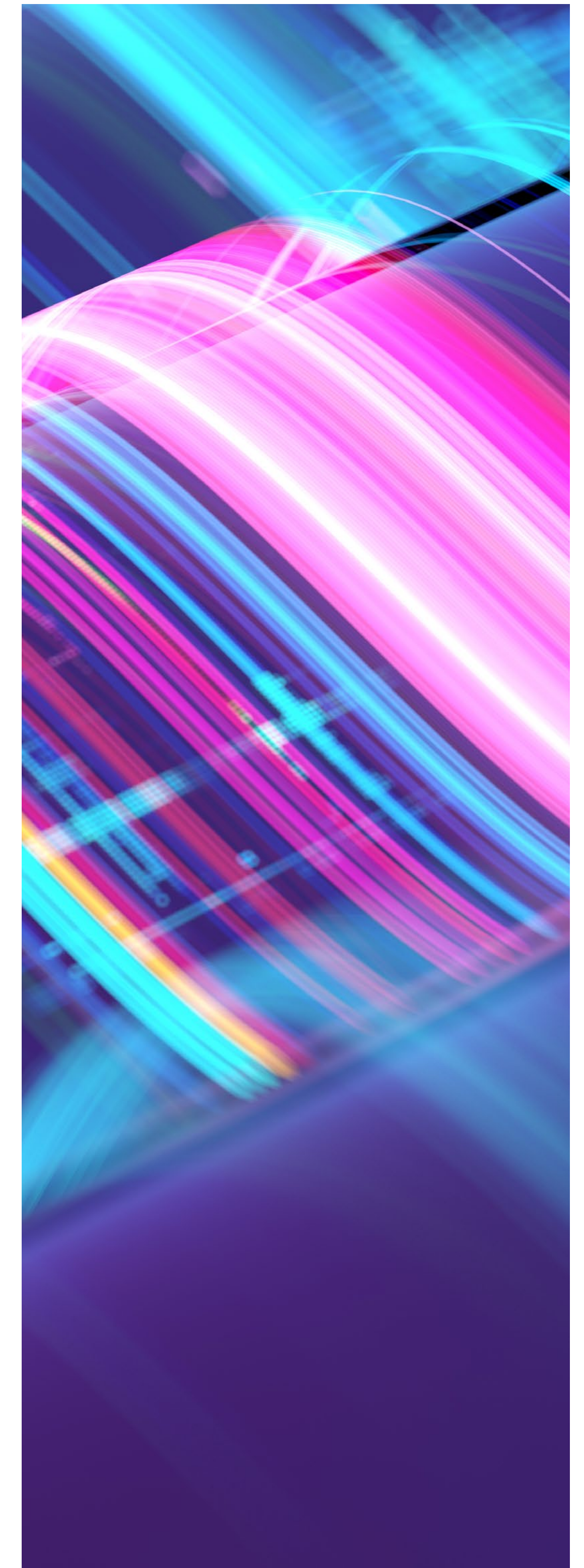


Intelligence and innovation

In practice, the Nokia Promise grants customers the power of true end-to-end visibility and enhanced network performance. It cultivates a communications ecosystem in which issues are identified before they're felt, operations are constantly optimized, and service levels are protected without the relentless need for manual intervention.

And best of all, these outcomes are all taken care of by us – allowing customers to instead focus their energy and resources on strategic and commercial growth. Because when customers choose Nokia Managed Services for Field Intelligence and Sustainability Services, they unlock:

- **Peace of mind**, by ensuring operational simplicity, security, and superiority.
- **Offloaded responsibility**, with 24/7 support tailored to the unique needs of our customers.
- **Centralized knowledge** that covers every domain and the full length of a network lifecycle.
- **Patented AI-driven applications** built to elevate network performance.
- **Enhanced availability** during high-traffic periods via reliable 5G.
- **Increased focus** on efficiency and CO₂ emissions.
- **Remote monitoring and control** over every piece of equipment at every site.
- **Optimization of current investments** rather than recommending needless extra spend.
- **High infrastructure capacity** for site sharing and introducing new technologies.
- **Scalability**, with Managed Services models that adapt to sites of any size, topology, or configuration.
- **Expanded modularity** as the network evolves and grows.



What sets Nokia apart

At Nokia, we view networks as the interconnected systems they really are, rather than as a melting pot of isolated technologies. This holistic perspective is particularly helpful when managing remote infrastructures and off-site locations, because it gives us the unique ability to optimize what matters, where it matters.

With over **5,000 Nokia experts** working around-the-clock at our **Global Delivery Centers**, our NextGen combination of **AI-powered solutions and deep telecom knowledge** is totally **vendor-agnostic**. We've got the flexibility to integrate seamlessly with any existing tech stack – standardizing operations and accelerating outcomes even if the network relies on different equipment at different locations.

In fact, we shape every service agreement around the precise needs of the customer. **Most (74%) of our global deliveries span multi-vendor environments**, which demonstrates our ability to navigate networks of any composition and scale. We can bring **end-to-end visibility and enhanced connectivity** to every part of the network, especially when managing a diverse range of domains.

Our Managed Services also take a progressive stance on **sustainability**, identifying intuitive and automated initiatives for improving energy expenditure in a way that still promotes a more productive and profitable network. This approach is facilitated through real-time analytics

displayed on a purpose-built dashboard. Similarly, we deploy insights and **24/7 monitoring** to protect the **cybersecurity** of public and private networks.

Everything we do is underpinned by **intelligent automation** tools that reduce manual interventions and streamline operational processes – driving networks towards zero-touch operations and AI maturity. Our commitment to continuous improvement means we always strive to enhance the end-user experience, strengthen brand reputation, and increase profitability.





The facts and figures

3.2
million

network elements
managed

5,000+

global experts

74%

of global deliveries
across multi-vendor
domains

2 to 5%

gains in energy OPEX
efficiency domains

The world's leading
**Managed Services
Provider** for

5 years
running

Our Field Intelligence and Sustainability Services portfolio

Nokia's suite of intelligent automation tools gives customers the power to run cleaner and leaner networks – removing the strain of managing every off-site location manually. It's a smarter, more scalable way to enforce environmental best practices while still exceeding commercial and operational goals.

Fundamentally, Nokia Managed Services for Field Intelligence and Sustainability Services provides end-to-end, multi-vendor support across any site at any scale. By taking responsibility for our customers' off-site monitoring and energy governance, we simplify network management while identifying new opportunities for eco-efficiency.

When it comes to managing Field Intelligence and Sustainability Services on behalf of our customers, our approach is defined by two key principles: intelligence and innovation. Smarter tools that unlock smarter ways to run remote network infrastructure, combined with inventive initiatives and processes that drive sustainable operations.

One half of this focus is delivered by our digitized and automated **Field Enablement Services, which include:**

- A unified automation framework for streamlining field workflows.
- Pre- and post-dispatch workforce management systems.
- Strategic support for field partner sourcing, qualification, and consolidation.
- Smart dispatching to ensure the right engineer is sent at the right time.
- Comprehensive governance, SLA oversight, and performance reporting.

The other half of our focus is to help customers to improve **Sustainability metrics through features like:**

- An AI-driven energy consumption dashboard which intuitively collates data insights by tech, vendor, and location.
- Energy analytics for detecting anomalies, power-hungry network components, and operational bottleneck patterns.
- A separate dashboard that recommends ways to optimize through configuration and installation. As a whole, our portfolio caters to customers who need to scale and optimize in one of the following four operational pillars: **Active Network Field Operations, Sustainability Operations, Tower-Co Operations, and Data Center Infrastructure.**

Pillar One: Customer Experience

Often, customers with large-scale remote infrastructure struggle to get a grip on every moving part of their network. By placing their network in our expert hands, they receive stability and optimization with AI-led diagnostics that minimize site visits and cut costs

Every application, piece of equipment, workflow, and domain can impact a network's overall health and performance. This is especially true for the inefficiencies that occur at remote base stations, which can significantly compromise a telecommunication provider's Quality of Service (QoS) from afar.

At Nokia, our vendor-neutral stance allows us to monitor all these components from a holistic perspective. More than anyone, we have the oversight to find areas for optimization across the entire scope of a field operations lifecycle.

That's how the Active Network Field Operations aspect of our Field Intelligence and Sustainability portfolio strengthens remote, off-site processes. Our customers outsource their field operation management to us, and we implement AI-driven solutions for corrective and preventive maintenance, access management, automated workflows, and consolidated partner management across every location.

Likewise, we also directly target quantifiable improvements in Mean Time to Resolve, truck roll scheduling, QoS, and OPEX metrics through:

- Automated ticketing and workflow orchestration.
- Workforce management.
- Active network telemetry observation for RAN, Transport, and Fixed.
- Spare-part management and logistics optimization.

Overall, the AI-driven automation offered by Nokia Managed Services for Field intelligence and Sustainability Services supplies networks with the predictive site analytics, streamlined workflows, and optimized expenses – creating healthier assets, promoting network availability, and contributing to a more sustainable operating model.

Pillar Two: Sustainability Operations

A telecommunication provider or mission-critical enterprise or public sector customer's success is often defined by the way they jointly manage their compliance and costs. Navigating these considerations poorly can derail profitability, reputation, and sustainability – which is why it's important to prioritize eco-friendly operations in a cost-efficient way.

At Nokia, the term “sustainability” refers to two connected ideas: firstly, an organization's ability to achieve long-term operational continuity; secondly, an organization's ethical duty towards running those same operations in an environmentally conscious way. Our Field Intelligence and Sustainability Services Portfolio is designed to implement both of those qualities.

When our customers choose us to manage their Sustainability Operations, we take responsibility for their long-term transformation by using energy, carbon, and compliance analytics to generate bespoke recommendations for growth and optimization. Step-by-step, our suite of automated tools – empowered by our global experts – works through the following process:

- **Assess baseline energy consumption** at a cellular level using data-driven, AI-sourced insights.
- **Identify anomalies and deviations**, then analyze their root cause – considering configuration gaps, loading bottlenecks, or hardware issues.

- **Deliver a detailed energy-efficiency roadmap** that can be fulfilled without compromising overall service performance.
- **Guide, reconfigure, and implement the suggested changes** to network architecture, tools, and operational processes – automating workflows where possible.
- **Benchmark the before-and-after results** to clearly demonstrate the financial and environmental gains.

This constructive cycle of network management uncovers additional value from a telecommunications stack: reduced OPEX, improved connectivity, lower greenhouse gas emissions, fewer field trips, carbon footprint reduction, and a stronger Corporate Social Responsibility score – all of which are measurable contributions to long-term sustainability goals.

Pillars Three and Four: Tower-Co Operations and Data Center Infrastructure

Nokia Managed Services for Field Intelligence and Sustainability Services is equally adept at managing the third-party infrastructures that prop up a network – acting as a neutral host that provides assurance, security, and performance.

Whether it's a Tower-Co site or a Data Center, telecommunication providers and mission-critical enterprise and public sector customers depend on infrastructure they don't always own – and therefore can't always influence – to achieve consistent connectivity.

Nokia bridges that gap with Managed Services available for both Tower-Co Operations and Data Center Infrastructure. Our teams at our global Network Operating Centers (NOCs) take end-to-end operational ownership of these external environments on our customers' behalf – deploying the same intelligence and automation we apply across the rest of the network.

Customers who need our support to optimize every part of their infrastructure while reducing their overall carbon footprint can choose from three different tiers of management:



The three different tiers of management

Package 1

Infrastructure monitoring, fault and alarm management, ticketing

For customers seeking to reduce downtime, improve Mean Time To Restore, and standardize workflows across diverse locations.

Customers receive all basic NOC capacities: advanced alarm correlation, automated ticketing, intelligent energy source selection, field enablement services, SLA dashboards, incident and problem management workflows, remote troubleshooting, and seamless OSS integration.

Package 2

Infrastructure operations and advanced energy analytics

For customers focused on making OPEX savings and establishing eco-friendly operational processes.

As well as including everything from Package 1, customers can benefit from automation for specific equipment use-cases: auto-start/stop of diesel generators, air conditioning temperature control, load shedding, predictive maintenance for generator runtime and fuel pilferage, solar/battery hybrid integration, and remote firmware updates.

Package 3

Full Managed Service for infrastructure operations

The comprehensive approach for end-to-end issue resolution.

This includes every feature from Packages 1 and 2. But it also offers a full Workforce Management module consisting of myWFM tools, auto-generated work orders, dynamic field engineer dispatch scheduling, GPS tracking and geo-fencing, digital checklist and site logs, a mobile application for job closures, and supervisor workflow orchestration – ensuring full-stack accountability and closed-loop fault handling. The benefits of these intelligent automations are all collated into a real-time energy dashboard, tracked against ongoing KPIs, and summarized with a monthly savings report.

The benefits of optimization at scale

Telecommunication providers and mission-critical enterprise and public sector customers are commonly held back by the buildup of small inefficiencies: the kind of habits or processes that erode performance, profit margins, and sustainability when left unchallenged at scale.

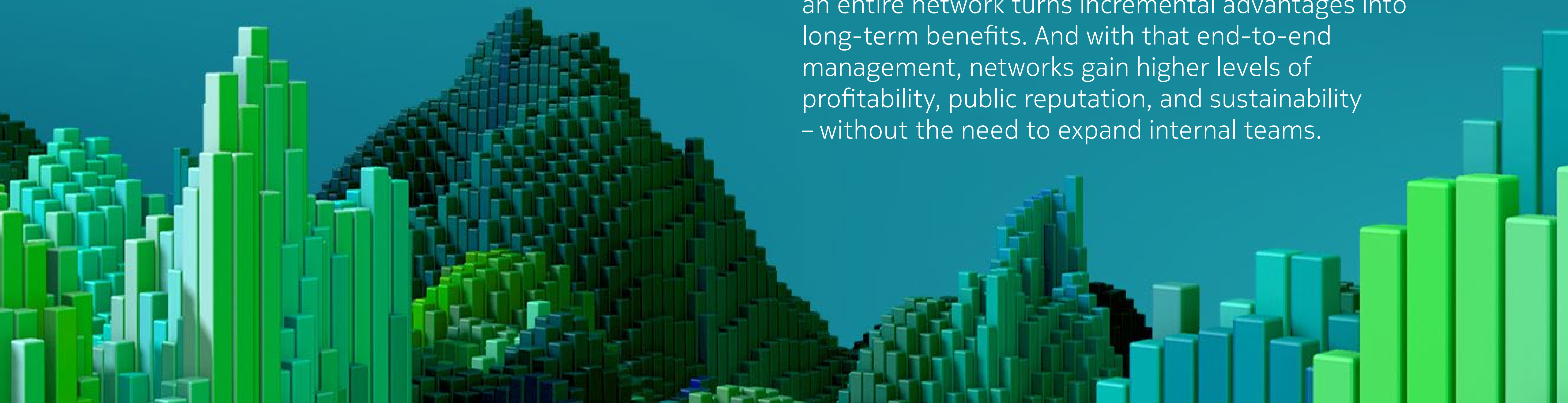
Nokia reverses that pattern by identifying countless optimization opportunities across field operations and energy management. Our customers have already achieved:

- **10 to 25% improvements** in scheduling accuracy and truck roll reduction.
- **10 to 20% decrease** in field visits and travel time.
- **2 to 5% gains** in energy OPEX efficiency.
- **Significantly fewer** large-scale hardware updates.

Our intelligent and innovative automation strategies create a transformative compounding effect – because the more inefficiencies we uncover and address, the more our customers benefit from a leaner, more reliable, and lower-emission network.

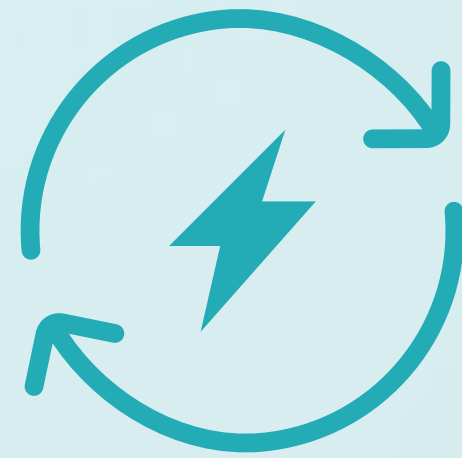
For instance, our Network Operating Center in Chennai, India, helped one Australian organization reduce its expenditure by over \$1 million. This was achieved by applying our AI-driven initiatives to minimize the frequency at which they dispatched vehicles to siloed locations. Just by optimizing one operational workflow, we were able to unlock significant financial and environmental savings.

Our ability to identify these types of optimization opportunities, automate the relevant corrective or preventive actions, and scale improvements across an entire network turns incremental advantages into long-term benefits. And with that end-to-end management, networks gain higher levels of profitability, public reputation, and sustainability – without the need to expand internal teams.



The benefits of optimization at scale

2-5% energy savings



Network management expertise



No large-scale deployments and hardware changes needed



**GCHG reduction/
carbon credit score improvement**

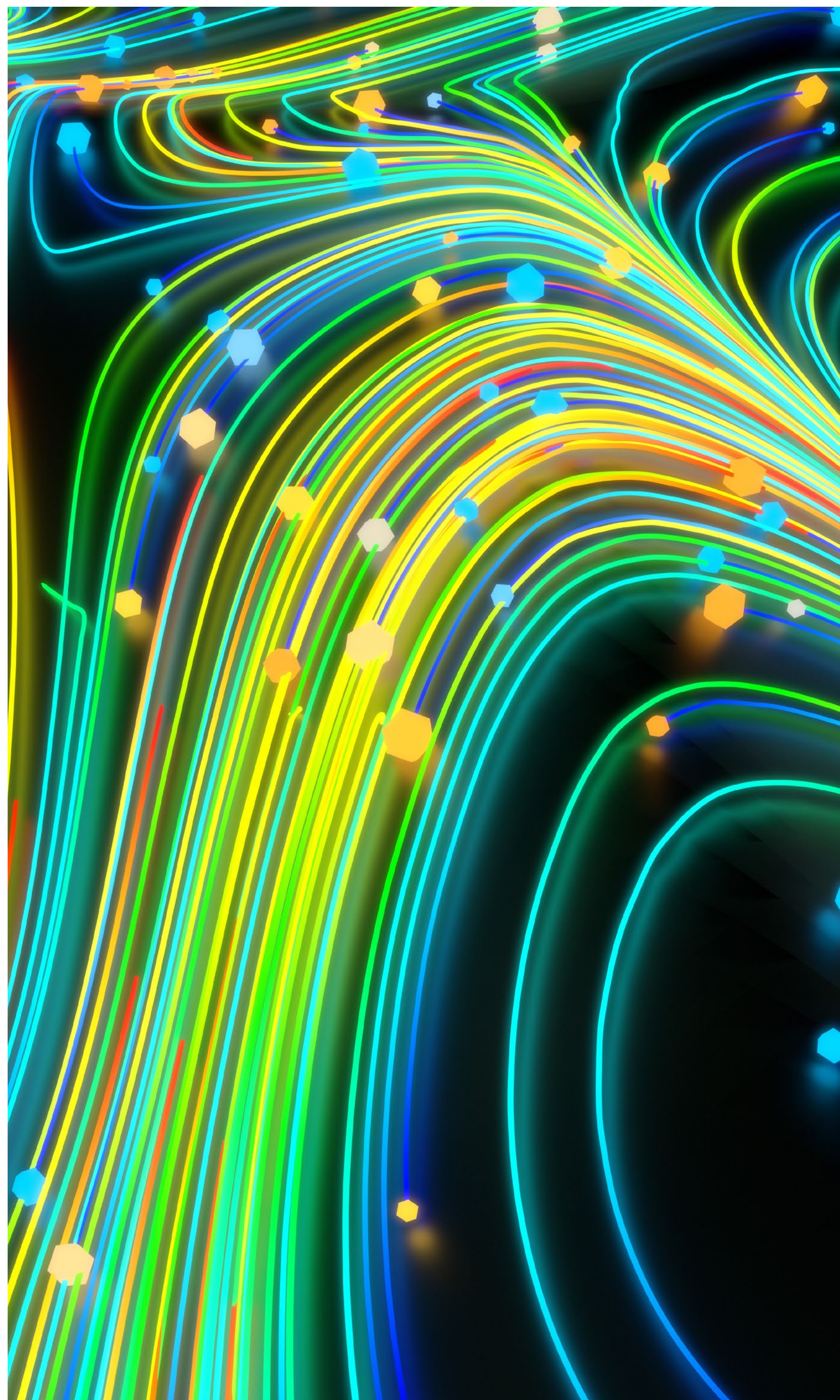


Site outage reduction – reduced field visits



Long term value creation – CSP brand value, green energy, CSR score





Stay one step ahead with AI-driven operations

Telecommunication providers and mission-critical enterprise and public sector customers around the world are recognizing the value of outsourcing the stresses and complexity of network management to a Managed Services Provider. At Nokia, we strongly believe ours offers the greatest benefits.

We uniquely combine our extensive telecom experience, global expertise, and AI-driven automation tools to keep our customers' telecommunications operations seamless, simple, sustainable, and secure – empowering them to innovate and grow with confidence and without distraction.

To learn more about how this approach is reshaping network connectivity globally, visit our Managed Services homepage.

[Visit our Managed Services homepage](#)

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At Nokia, we create technology that helps the world act together.

As a B2B technology innovation leader, we are pioneering networks that sense, think and act by leveraging our work across mobile, fixed and cloud networks. In addition, we create value with intellectual property and long-term research, led by the award-winning Nokia Bell Labs.

Service providers, enterprises and partners worldwide trust Nokia to deliver secure, reliable and sustainable networks today – and work with us to create the digital services and applications of the future.

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