

SOLUTION BRIEF

Nokia Software Upgrade Services with Agentic AI

Safer, faster network
evolution through
intelligent automation

NOKIA



Software upgrades are essential to introduce new capabilities, strengthen security and keep mobile networks ready for future demand. But in large live radio networks, every upgrade must be delivered within tight maintenance windows while protecting service continuity, customer experience and operational confidence.

Nokia Intelligent Software Upgrade Services help operators transform software upgrades from high-risk, manual events into predictable, data-driven workflows. By combining Nokia's global upgrade expertise, AI-assisted planning, Agentic AI orchestration and automated execution, the service helps operators accelerate rollout, reduce operational risk and scale software evolution with greater confidence.



The Nokia Promise:

from manual upgrades to
intelligent software evolution

more than

2M

node upgrades
each year

more than

110

telecom networks

Nokia brings upgrade activities into a more intelligent, transparent and repeatable operating model. Operational knowledge from more than 110 telecom networks and more than 2 million node upgrades each year feeds a continuously improving data foundation, helping every future rollout benefit from proven experience and AI-enabled learning.

The challenge:

faster software evolution with less room for error

Operators are under pressure to release software more frequently, activate new features faster and keep networks secure without disrupting live services. Traditional upgrade approaches often rely on fragmented tools, siloed data and manual coordination, making it difficult to deliver large-scale upgrades consistently and safely.

- **Speed pressure:** frequent releases and large installed bases increase the need for faster planning and execution.
- **Operational risk:** every upgrade can affect performance, trigger rollback scenarios or impact customer experience if not managed precisely.
- **Scalability limits:** manual processes make it harder to repeat upgrades reliably across large networks and multiple rollout waves.

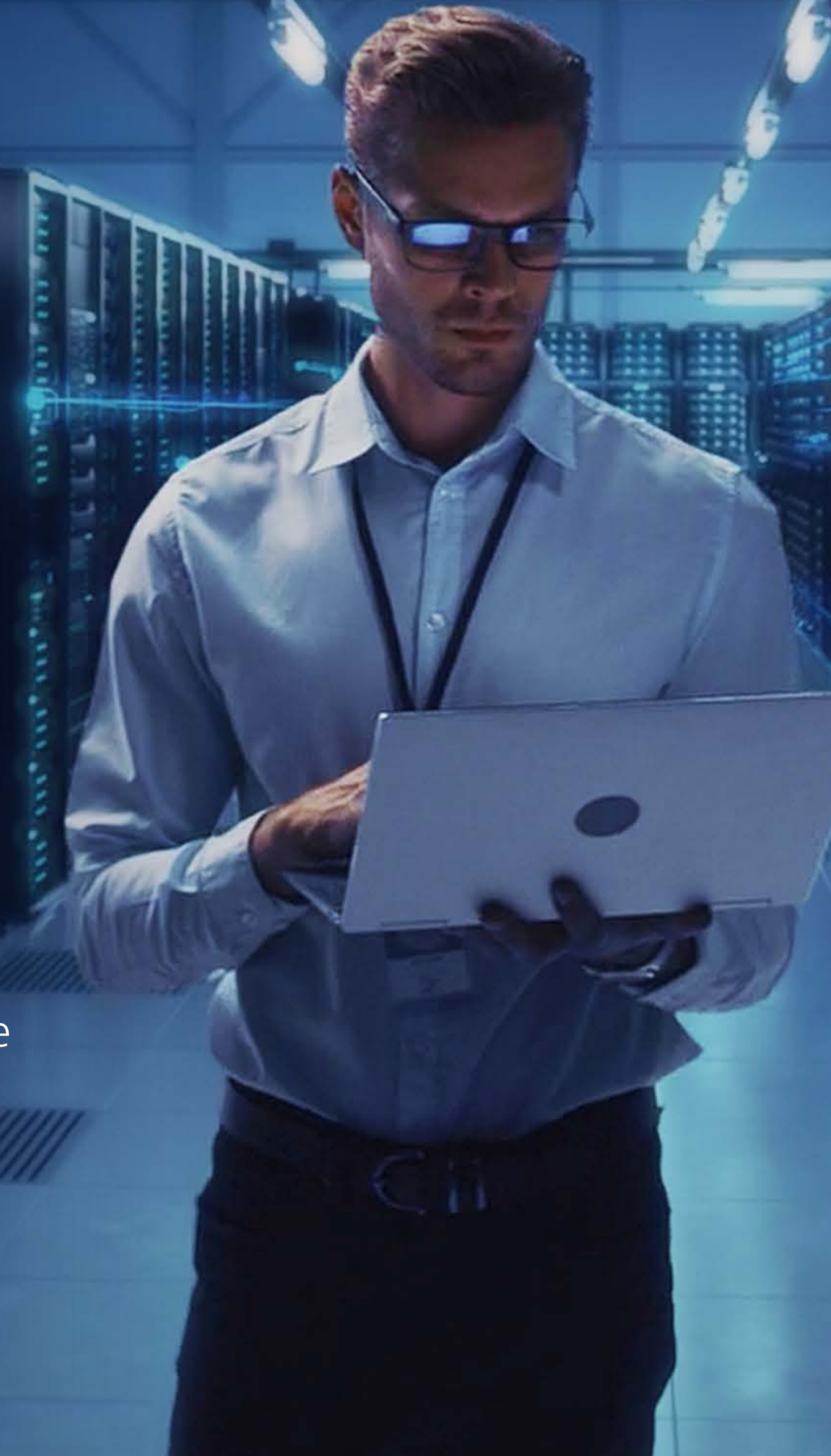
The result is a growing need for an upgrade model that improves speed and efficiency while strengthening quality, transparency and uptime.



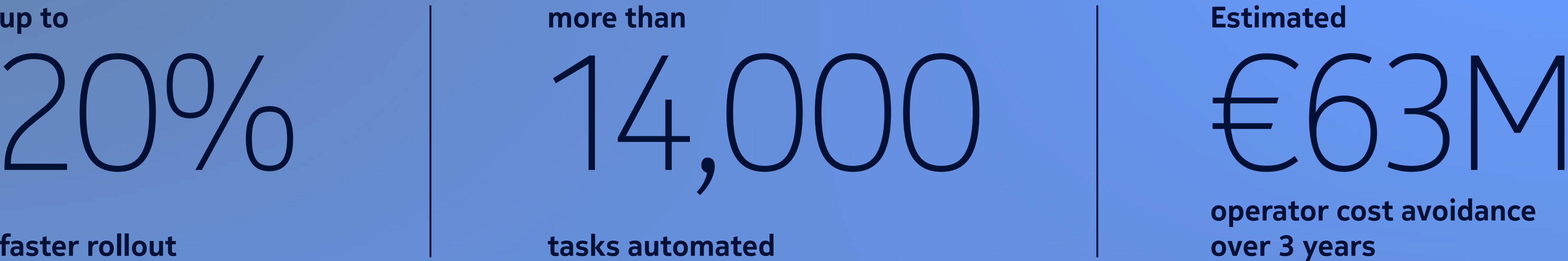
The solution: one intelligent lifecycle for software upgrades

Nokia Intelligent Software Upgrade Services connect planning, risk prevention, execution, validation and learning into one AI-enabled lifecycle. The service combines customer knowledge, historical upgrade data, installed-base information, deployment records and operational systems to support smarter decisions across every phase.

- 1. Plan with confidence:** AI-assisted planning predicts timelines by project phase using historical delivery data and customer-specific requirements.
- 2. Prevent known risks:** analytics identify recurring issues, vulnerabilities and software behavior patterns before they affect the live network.
- 3. Orchestrate intelligently:** Agentic AI interprets user intent, coordinates specialized agents and supports background checks for earlier, more accurate preparation.
- 4. Execute with automation:** automated workflows reduce manual effort, monitor progress, detect anomalies and trigger predefined actions when needed.
- 5. Validate performance:** KPI monitoring and post-upgrade validation confirm network stability and accelerate corrective actions.
- 6. Learn from every rollout:** each upgrade strengthens the data foundation, improving future planning, prevention and execution.



Proven impact



Proof point	What it enables	Customer value
2+ million node upgrades per year	A broad operational data foundation for AI-assisted learning	Smarter planning, stronger issue prevention and more consistent execution
More than 110 telecom networks	Global delivery experience across diverse network environments	Higher confidence in large-scale rollout planning and delivery
Up to 20% faster rollout	Shorter upgrade timelines and improved resource planning	Approximately 15% upgrade opex savings
More than 14,000 tasks automated	Reduced manual intervention and fewer procedural errors	Improved reliability and support for zero procedural outages
Estimated €63 million operator cost avoidance over three years	Earlier risk detection and repeatable upgrade execution	Lower avoidable cost and stronger business continuity

What this means for operators

- Increase upgrade confidence with clearer visibility into risks, timelines and live progress.
- Accelerate rollout while maintaining service continuity and network stability.
- Improve software upgrade quality through consistency of action and enforced knowledge checks.
- Prevent known issues before they affect customers by reusing knowledge from previous upgrades.
- Create a scalable foundation for more repeatable, data-driven software evolution.

The result is a safer, faster and more predictable way to evolve live networks while protecting customer experience.

Built for continuous improvement

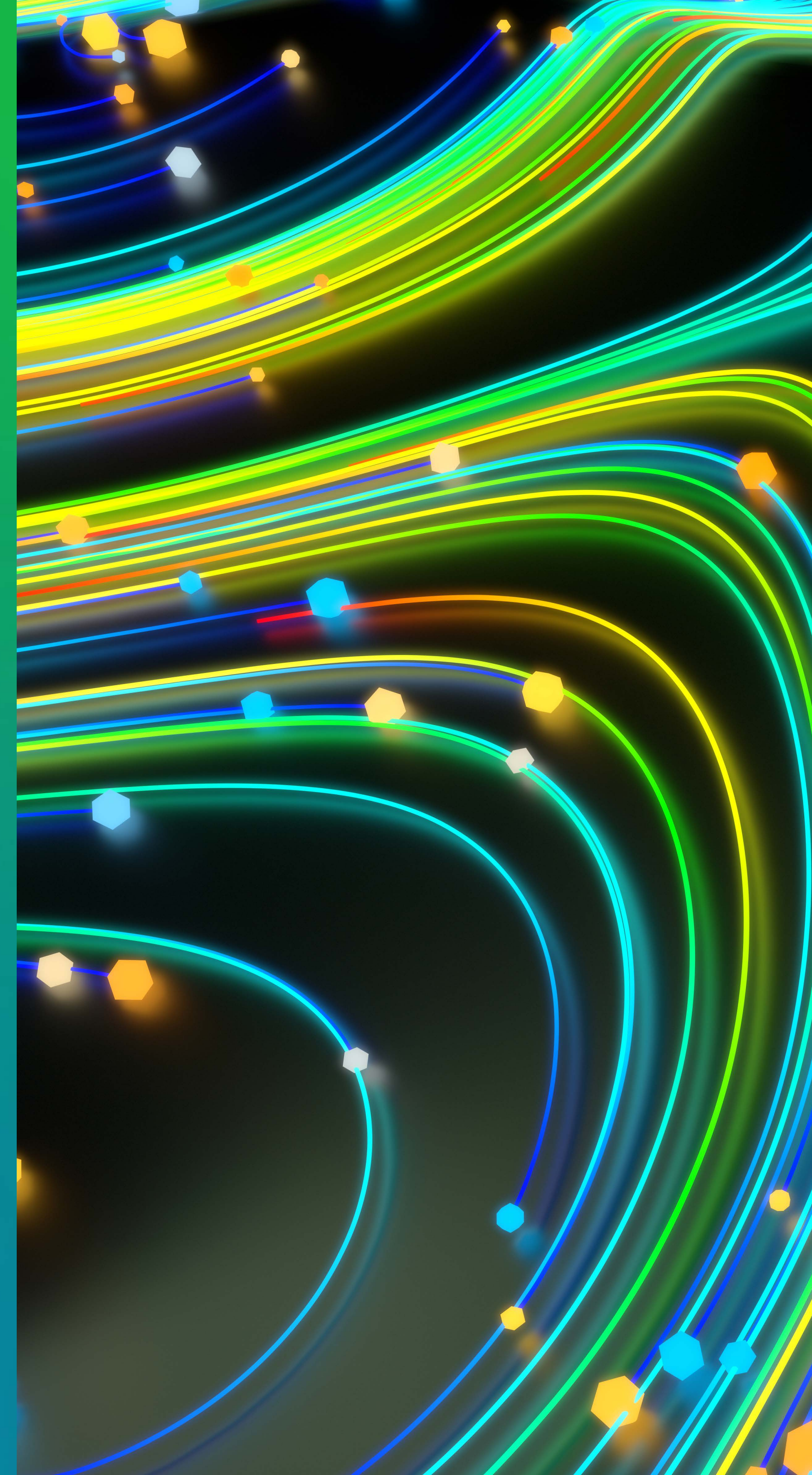
Every upgrade creates new operational knowledge. As each rollout feeds the data foundation, the service improves future planning, strengthens issue prevention and increases execution consistency.

This creates a reinforcing improvement loop: better data enables better decisions, better preparation and better outcomes. Over time, the same foundation can support new AI use cases and increasingly autonomous upgrade workflows.

Looking ahead: toward zero-touch software upgrades

Nokia continues to evolve Intelligent Software Upgrade Services by enriching the data foundation, improving AI accuracy and expanding Agentic AI capabilities across the software upgrade lifecycle.

The target is a seamless digital flow from planning and preparation to execution, KPI monitoring and corrective action. After each rollout, operators can resume the network with improved stability, performance and confidence.



Why Nokia?

Nokia MI Services combines deep telecom expertise, large-scale global delivery experience and advanced AI-driven automation to help operators upgrade networks with greater speed, safety and confidence.

By turning software upgrades into a more intelligent, transparent and repeatable process, Nokia Technical Support Services helps operators keep networks ready for new services, new security requirements and the next phase of network evolution.



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NOKIA

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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