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Network Intelligence — enabling service continuity

AI-powered, preemptive
support services

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Data-driven analytics unlocking new insights

Network operations are growing in complexity with 5G, virtualization, open standards and network slicing. This creates new opportunities, but communications service providers must simplify existing operations.

Network Intelligence brings simplicity to network complexity in a 5G, virtualized, open digital ecosystem. It achieves this through advanced, data-driven analytics that give fresh, unlocked insights and helps service providers understand network data, as well as predict and preempt faults instead of reactively troubleshooting them.

Network Intelligence use case categories include:

- predicting and preventing complex issues
- detecting and preemptively addressing anomalies
- advanced automation
- human-guided, AI-engineered intelligence and Edge analytics
- customer-driven networks or solutions observability

Network Intelligence enables AI-powered, data-driven support to address future network operations challenges. Data-driven models leverage augmented machine intelligence analytical techniques, and

transforming processes, people and tools toward increasingly data-driven activities, away from event-driven tasks. Increased AI automation creates massive insights and improvements, enabling service providers to hear through network noise, and convert collected and processed data for preemptive actionable intelligence.

Ericsson’s depth of end-to-end domain product experience, comprehensive data-driven solutions and culture of global knowledge-sharing, reinforced by a broad information library, uniquely positions us to support service providers to make an effective transition to data-driven operations. This is augmented by speed, which is essential in capturing and acting upon insights.

Figure 1: The importance of preemptively identifying and addressing incidents

 Customer experience	35%	reduction in critical incidents	5 mins	from data collection to automatic resolution
 Network quality	60%	reduction in network performance issues	77%	reduction in VoLTE critical-failure detection time
 Fast execution	6 days	from customer requirement to use case online	1 day	from fault detection to expert resolution
 Secure	Certified	ISO 27001-certified and aligned with GDPR	Flexible	system deployment models

Enabling data-driven operations

We are addressing AI-driven automation operational demands through Network Intelligence, which combines three pillars – data, analytics and insights – to tackle the increasing complexities of modern networks and prepares service providers for 5G.

Using Network Intelligence, which is powered by AI/ML analytics, service

providers can enable 5G networks with augmented intelligent operations, empowered by data-driven network insights and actionable intelligence. Ericsson benefits from extensive knowledge derived from customer networks all over the world. Combining this with customer network data and other relevant data points makes it possible to identify

data model fingerprints that help guide AI-driven automation models.

Network Intelligence is an extension of Ericsson’s Support Services and will effectively and rapidly extract meaning from vast amounts of network data.

AI-driven collaboration achieving service continuity

Although a fast response to critical network issues is important, it is no longer enough. As network operation complexity increases, service providers need partners and vendors to go beyond reacting to needs.

Network Intelligence anticipates needs, but moves beyond traditional operating models, predating 5G, virtualization and cloud, which are primarily reactive, incident and event-driven, and based on alarm monitoring and dispatch for break-fix.

Network Intelligence preemptively addresses the cause of imminent network anomalies, going beyond only addressing symptoms. Speed and precision are crucial in addressing and analyzing the appropriate data insights.

Successful preemptive action requires deep domain insights and expertise to take the correct action without causing further harm. Our proven systems and capabilities are meeting service providers' preemptive and predictive, data-driven requirements.

Network Intelligence goes further, addressing network complexity through human-guided, advanced analytics to achieve improved efficiency, using network intelligence and actionable insights. It does so at incredible speeds – six days from customer requirement to use case implementation, and within five minutes from data collection to automatic resolution.

Network Intelligence benefits include:

- reducing network performance issues by up to 60 percent
- decreasing critical incident handling by up to 35 percent
- early insights up to 1–2 hours before network-impacting latency and downtime issues
- faster fault isolation time, from hours to minutes

For a successful AI-driven data world, service providers must have access to domain, telecoms and data knowledge, global customer reach, transformative mindsets, and a continuous learning and knowledge-sharing culture. So, choosing the right partner is essential.

Network Intelligence's operating models facilitate close customer collaboration and co-creation. Operations are transformed from being event-driven and reactive to tactically data-driven, using deep network insights.

Access to a depth of domain network knowledge becomes more important as service providers embark on data-driven digitalization. Experience shows that most of the effort involved in adopting AI analytics is data preparation. Done correctly, with appropriate expertise, it will facilitate massive insights and improvements to most operational aspects and address network problems impacting stability and quality.

Ericsson can filter out the noise, and seek new unknowns and insights to guide the AI-driven automation framework. Network Intelligence's advanced techniques take network services to the next level, enhancing value by uncovering unknown network issues, using data-driven use cases combined with extracting meaning from vast data sources.

Evolving network services

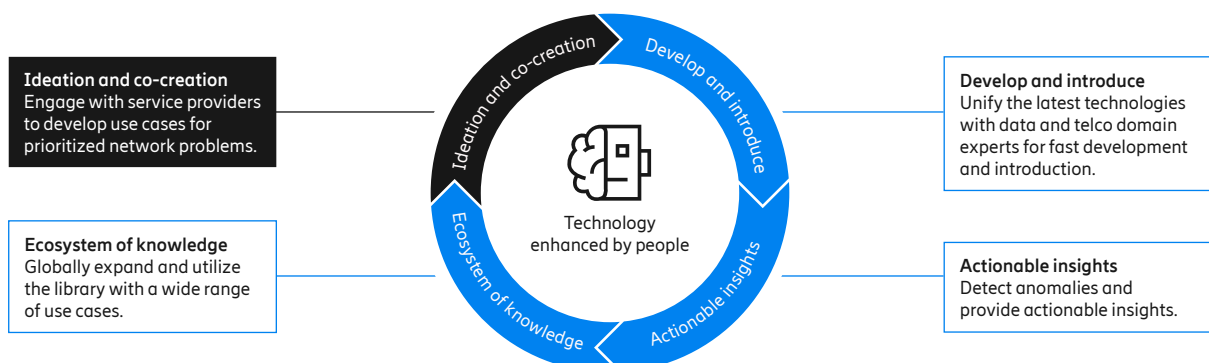
Ericsson's considerable experience in driving network services capabilities has seen many companies choose us as their partner for AI data-driven operations.

Network Intelligence combines our Service Support Team's vast product knowledge with customer network data, product insights and other data points, to identify data model fingerprints that guide AI-driven automation models.

Ericsson's unique combination of global network knowledge, local and international expertise, and machine intelligence helps to make data meaningful and filter out noise. This enables us to provide a variety of standard, customized and co-created use cases that enhance network performance and consumer experience.

This is only a brief insight. For more information, click [here](#), speak with us [here](#) or follow Ericsson on social media.

Figure 2: The co-creation and partnership flow



Ericsson enables communications service providers to capture the full value of connectivity. The company's portfolio spans Networks, Digital Services, Managed Services, and Emerging Business and is designed to help our customers go digital, increase efficiency and find new revenue streams. Ericsson's investments in innovation have delivered the benefits of telephony and mobile broadband to billions of people around the world. The Ericsson stock is listed on Nasdaq Stockholm and on Nasdaq New York.

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