

Amdocs Network AIOps for Azure

AI-powered network operations with Microsoft Fabric & OpenAI

Transform network operations with Amdocs' AI/ML-driven network operations agentic framework that utilizes Microsoft's Real-Time Intelligence (RTI) to ingest network telemetry, subscriber events, and operational data into a uniform, telco data model built on Microsoft Fabric.

Telecom network engineers are facing unprecedented challenges as networks become more complex, data volumes surge, and customer expectations rise. Amdocs Network AIOps for Azure is a telco-grade, AI-powered solution built on Microsoft Fabric, Azure ML, and OpenAI. It ingests massive amounts of telemetry data, detects anomalies, performs root cause analysis, and enables automated remediation. The solution correlates network events, identifies issues and remediates them while assessing the customer impact to enabling highest resolution priorities and proactive engagement reducing customer churn due to network issues. Amdocs solution supports a phased automation journey—from human-assisted MOPs to closed-loop automation—ensuring trust and reliability. Designed for CSPs deeply invested in Microsoft's ecosystem, it integrates seamlessly with existing IT governance, security, and enterprise tools.

Key Challenges for Operations Engineering:

1. Increasing Network Complexity

Modern telecom networks span multiple domains (RAN, Core, Transport) and technologies, often involving multi-vendor environments. This complexity makes fault detection and resolution more difficult and time-consuming.

2. Siloed Operations Across Vendors and Technologies

Disconnected systems and fragmented data across OSS, BSS, and network layers prevent holistic visibility and coordinated responses. Engineers struggle to correlate events and prioritize issues based on customer impact.

3. Manual Toolsets and Limited Automation

Many operators still rely on manual processes and legacy tools, which are insufficient for managing the scale and speed of today's networks. This leads to slower response times and higher operational costs.

4. Disparate AI/ML Adoption

AI/ML initiatives are often isolated within specific domains and lack integration into broader operational workflows. This limits their effectiveness and keeps them in the realm of academic experimentation rather than real-world.

Challenges: Business Impact

- **Declining Customer Experience** due to delayed fault resolution and service disruptions.
- **Rising Operational Costs** as more resources are needed to manage growing complexity.
- **Blind Spots in Data Utilization** where valuable insights are lost due to fragmented systems.
- **Slowed Innovation** caused by workforce misalignment and inadequate tooling.

How Amdocs Network AIOps on Azure Addresses These Challenges:

Amdocs Network AIOps on Azure is a comprehensive, AI-native solution designed to modernize telecom operations and empower network engineers with intelligent automation and actionable insights.

Solution Capabilities:

- **Unified Data Fabric:** Integrates telemetry, customer profiles, and operational data across domains to eliminate silos.
- **Automated Fault Detection & RCA:** Uses AI/ML to detect anomalies in real time and perform root cause analysis with minimal human intervention.
- **Closed-Loop Remediation:** Executes automated playbooks to resolve issues quickly and efficiently.
- **Operationalized AI/ML:** Transitions models from theory to practice, embedding them into daily workflows for predictive maintenance and performance optimization.
- **Comprehensive Visibility:** Provides dashboards and analytics that give engineers a full view of network health and customer impact.

From Assistant to Agent: The Phased Automation Journey

The ultimate goal of any Network AIOps initiative is closed-loop automation, where the system can detect, diagnose, and remediate issues without human intervention. However, attempting to implement full automation from day one in a critical network environment would be both technically reckless and culturally impossible. The risk of an AI-driven error causing a catastrophic network outage is too high, and the operational culture of the NOC is, by necessity, deeply conservative and risk-averse. Amdocs' phased approach demonstrates a profound understanding of this reality. The journey is deliberately gradual, designed to build trust and confidence over time.

Phase 1: Network Assistant (Manual Remediation): In the initial phase, the agentic AI framework functions as a “copilot” for the human NOC engineer. When an alert is triggered, the system ingests the relevant data from the federated fabric, correlates disparate events to identify the likely root cause, and then generates a detailed, human-readable Method of Procedure (MOP). This MOP outlines the step-by-step actions required to resolve the issue. The AI is not taking action; it is providing a recommendation and showing its work. This empowers the engineer, making them faster and more effective, rather than seeking to replace them. Each successfully resolved incident serves as a validation point, building the engineer's trust in the system's accuracy and utility.

Phase 2: Closed-Loop Automation (Full Automation): Only after a prolonged period—potentially many months or even years—of proven accuracy and reliability does the framework transition to the next phase. During this time, the system logs every MOP it generates and tracks the success rate of the human-led remediations. Once confidence reaches a pre-defined threshold for specific, well-understood classes of problems (e.g., restarting a known problematic virtual function), the operator can choose to enable closed-loop automation. The system is then authorized to execute the MOP automatically via integration with Amdocs automation engines. This gradual, evidence-based progression is the only viable path to achieving meaningful automation in a high-stakes environment like a national telecommunications network. It transforms the conversation from a risky technological leap to a manageable, confidence-building evolution.

Top 3 Benefits

- **Reduced MTTD/MTTR:** Mean Time to Detect and Repair are significantly lowered through automation and intelligent insights.
- **Lower Operational Costs:** Efficiency gains reduce the need for manual intervention and redundant processes.
- **Enhanced Decision-Making:** Unified data and AI-driven insights empower engineers to make faster, more informed decisions.

Learn more

Network AIOps Demo: IMS Fault Detection:
[NWAIOps Microsoft Video Demo Recording](#)

Pricing and billing:

Amdocs multi-year professional services engagement model tailored to each operator's existing network assets and challenges.