

Amdocs Agentic AI-Powered Network-to-Care on Microsoft Azure



Executive Summary

In today's competitive telecom landscape, customer expectations are higher than ever. Amdocs' Network-to-Care solution on Microsoft Azure with Fabric offers a powerful, cloud-native approach to managing network operations and customer care. By harnessing AI/ML and GenAI, the solution enables telecoms to detect service issues early, resolve them autonomously, and engage customers proactively—reducing churn and enhancing satisfaction.

Solution Overview

Amdocs Network-to-Care on Azure is a fully integrated solution that transforms telecom operations through intelligent automation and customer-centric care. Built on Microsoft Fabric, it unifies network telemetry, customer profiles, and operational data into a single data fabric. This enables real-time monitoring, anomaly detection, and automated fault resolution using Azure Machine Learning and Azure Event Hubs.

When a network issue occurs, the system immediately assesses customer impact using enriched KPIs and subscriber data. Predictive models classify affected users based on their likelihood to call or churn. GenAI agents, powered by Azure OpenAI Service, then engage these customers with personalized messages, resolution updates, or compensation offers—turning potential churn into retention.

The solution supports digital twin modeling, enabling operators to simulate network behavior and optimize performance proactively. With Azure Synapse Analytics, Cosmos DB, and Data Factory, CSPs gain scalable insights and automation across the entire service lifecycle.

Industry Challenges

Silent Churn and Customer Disengagement

Many telecom customers experience service degradation but never report it. This silent churn poses a significant threat to revenue and brand reputation. Without visibility into customer impact, operators miss critical opportunities to retain subscribers through timely engagement.

Alarm Fatigue and Reactive Operations

Legacy systems flood operations teams with alarms, many of which are irrelevant or duplicated. This noise obscures real issues and delays resolution, increasing operational costs and reducing service reliability. A shift to intelligent, prioritized alerting is essential.

Disconnected Systems and Data Fragmentation

Customer care and network operations often rely on separate platforms, creating silos that prevent coordinated responses. This lack of integration leads to inefficiencies, poor customer experiences, and missed opportunities for automation and insight.

Escalation-Driven Support and High Costs

Traditional support models depend on customer complaints to trigger action. This reactive approach results in call center overload, long wait times, and high OPEX. Without predictive analytics, telecoms struggle to optimize staffing and response strategies.

Business Benefits

Real-Time Detection and Resolution

Using Azure's scalable telemetry ingestion and ML inferencing capabilities, Network-to-Care identifies anomalies as they happen and initiates automated remediation. This real-time responsiveness ensures minimal service disruption and maximizes uptime, which is critical for customer satisfaction and SLA compliance.

Reduced MTTD/MTTR

Mean Time to Detect (MTTD) and Mean Time to Repair (MTTR) are key operational metrics. Azure's integrated data fabric and AI orchestration reduce both by enabling faster fault identification and resolution. Engineers receive contextual insights and recommended actions instantly, streamlining the entire incident lifecycle.

Lower Call Volumes and Operational Costs

By resolving issues before customers are impacted and proactively communicating with those who are, the solution reduces the need for support calls. This leads to lower staffing requirements, reduced training overhead, and significant savings in call center operations—all while improving customer experience.

Enhanced Customer Satisfaction and NPS

Customers appreciate transparency and proactive care. Azure OpenAI-powered agents deliver personalized messages, updates, and compensation offers, turning negative experiences into positive ones. This approach boosts NPS and fosters long-term loyalty, even in competitive markets.

Minimized Silent Churn

The solution's predictive models identify customers at risk of silently leaving due to unresolved issues. By engaging these users with targeted interventions, telecoms can prevent churn before it happens. This not only retains revenue but also strengthens the brand's reputation for reliability and care.

Scalable, Cloud-Native Deployment

Built on Microsoft Azure, the solution is inherently scalable and secure. It supports rapid deployment across geographies and integrates seamlessly with existing OSS/BSS systems. Telecoms benefit from reduced infrastructure overhead and future-proof architecture that evolves with their needs.

Solution Highlight

- **Intelligent anomaly detection and RCA**
- **Automated remediation workflows**
- **Subscriber classification and churn prediction**
- **GenAI-powered customer engagement**
- **Digital twin simulation for predictive insights**

Architecture Highlights (Azure)

- **Azure Machine Learning:** Model training and inferencing
- **Microsoft Fabric:** Unified data fabric across domains
- **Azure Data Factory:** ETL pipelines for structured/unstructured data
- **Azure Event Hubs:** Real-time telemetry ingestion
- **Azure Synapse Analytics:** Data warehousing and analytics
- **Azure Cosmos DB:** Scalable operational data store
- **Azure OpenAI Service:** GenAI orchestration and RAG integration

Conclusion

Amdocs Network-to-Care on Microsoft Azure with Fabric offers telecoms a future-ready path to autonomous operations and customer-centric care. Reach out to Amdocs to explore how this solution can transform your network and customer engagement strategy.