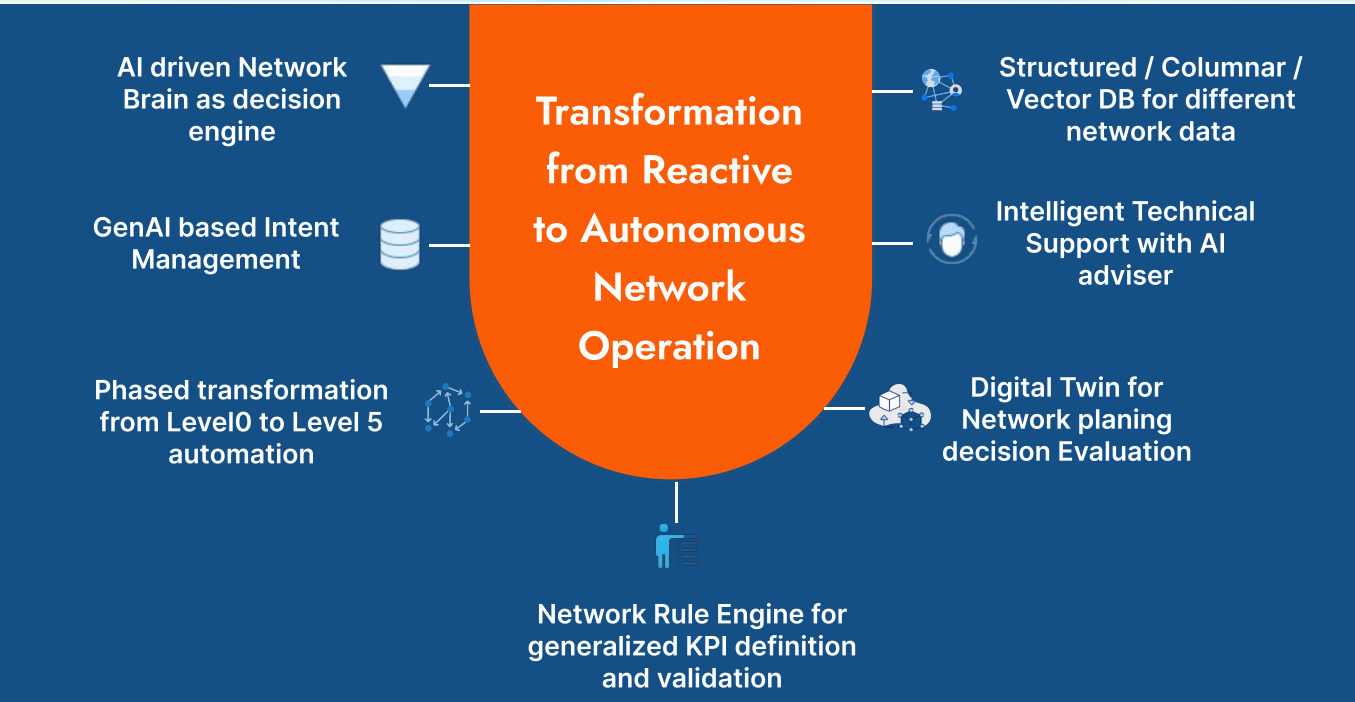
IKTARA

Autonomous Network Solution

Transforming telecom network to Intent driven autonomous network



Success Stories

- **Cognitive network operations for transport domain : For Tier 1 Indian CSP**
- **GenAI assisted technical support : For leading Indian ISP customer**

Targeted Use Case

- Intent Driven Network Operation
- Intelligent Technical Support
- Context aware Customer Support
- Digital Twin assisted network planning

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Solution Components

Network Data Store

Network Data Store creates a data lake that stores different kinds of network data, which are further used for visualization, analytics, machine learning, and autonomous networks.

- **Structured Data Store**
- **Columnar Data Store**
- **Vector Data Store**

Network Rule Engine

Network rules engine enables the creation of rules to validate that network KPIs are aligned with prescribed parameters. The rule language depends on the type of network data, e.g., inventory, configuration, event, alarms, or performance data.

- **Inventory/Config Rules**
- **Performance Rules**
- **Alarms/Event Rules**

Network Dashboard

The Network Dashboard is the visualization layer of the autonomous network solution that depicts the results of the execution of network rules on the network data store. This enables a consolidated view of network health as well as a 360-degree insight into the health of individual NEs.

- **Regional Network Dashboard**
- **Device Dashboard**
- **Network Health Trends**

Intelligent Technical Support

Autonomous networks strive to create a Dark NOC where network operations are completely automated. With intelligent technical support, technicians would be assisted by an AI advisor that would.

- **Enterprise RAG Engine**
- **Enterprise Data Connectors**
- **AI Incident Advisor**

Network Intent Manager

The Intent Manager connects human intent to the network infrastructure. Intent abstracts expectations from the network in natural language, which need to be interpreted, translated, stored, and transported for network actions.

- **Intent Interpreter**
- **Intent Translator**
- **Intent Monitor**

Network Brain

The Network Brain is the AI-based decision engine of the autonomous network. It uses various machine learning (ML) approaches, such as supervised learning, reinforcement learning, and generative AI, to analyze network data and expected intents and to make decisions on optimal actions.

- **Decision Generator**
- **Decision Validator**
- **Decision Executor**

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