AI-Driven Autonomous Network Operation for Mobile Network

Agentic AI for Network Service Fault Management

MWC26

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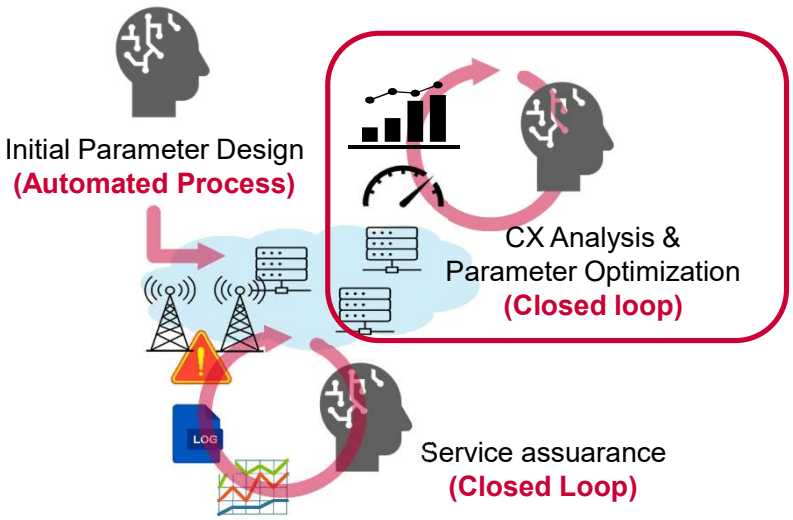
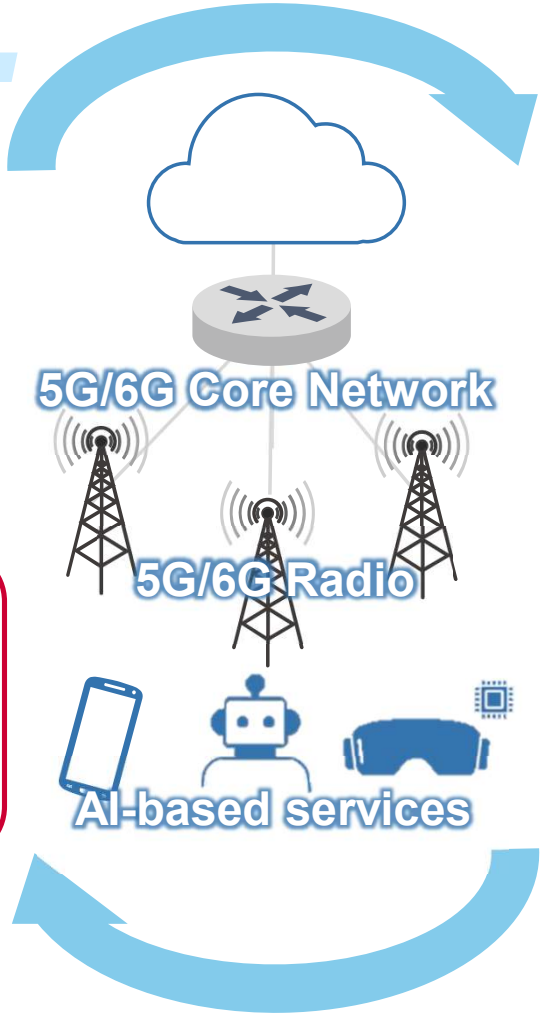
DOCOMO's AI-Centric Network Initiatives

AI for Network

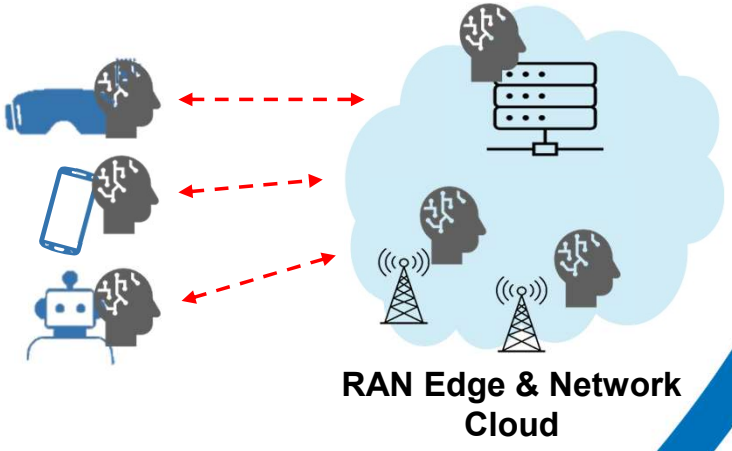
- Autonomous Networks
  - AI-driven network deployment
  - Agentic AI service assurance
  - CX-based network optimization
- Self-aware networks





Network for AI

- In-Network Computing
- New AI services on mobile (e.g. robots, smart glasses)
- Handling increased AI traffic

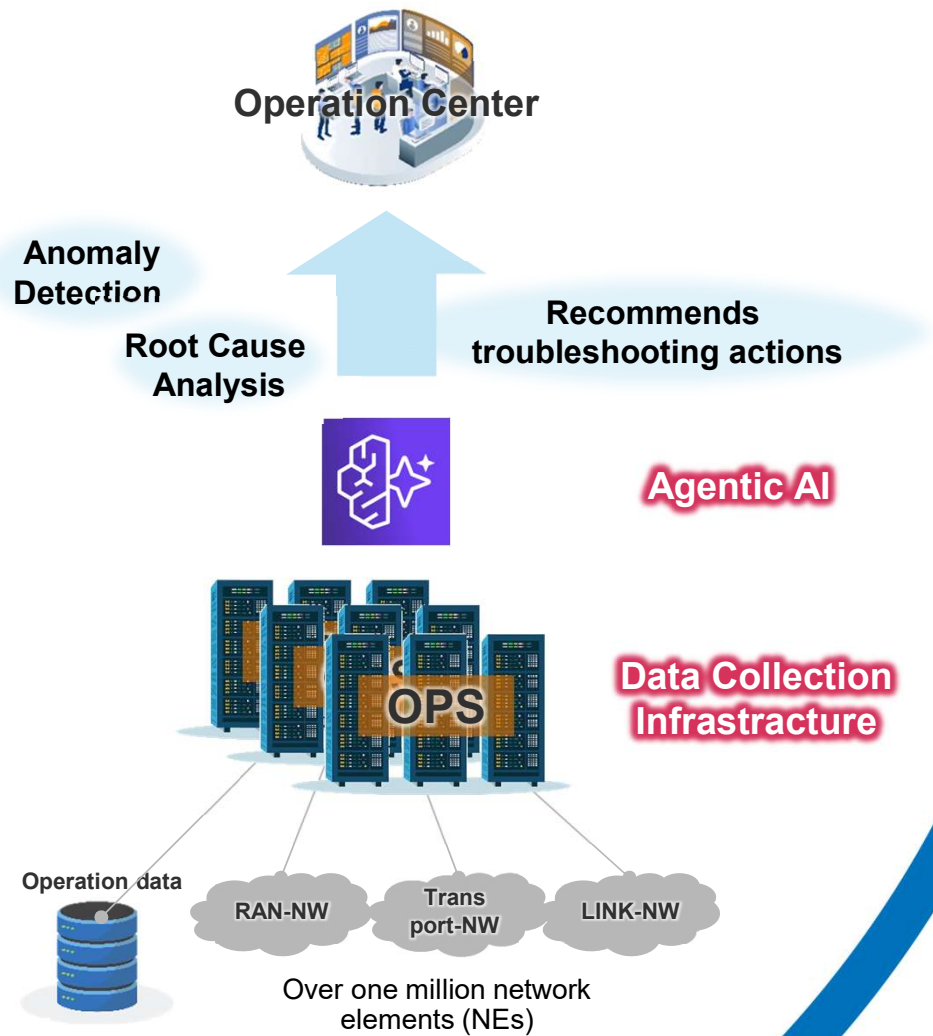


Agentic AI for Network Service Fault Management

DOCOMO begins using Agentic AI in **commercial maintenance operations**.

It analyzes data from **over 1 million devices**, from base stations to the core networks, one of the largest data in the world

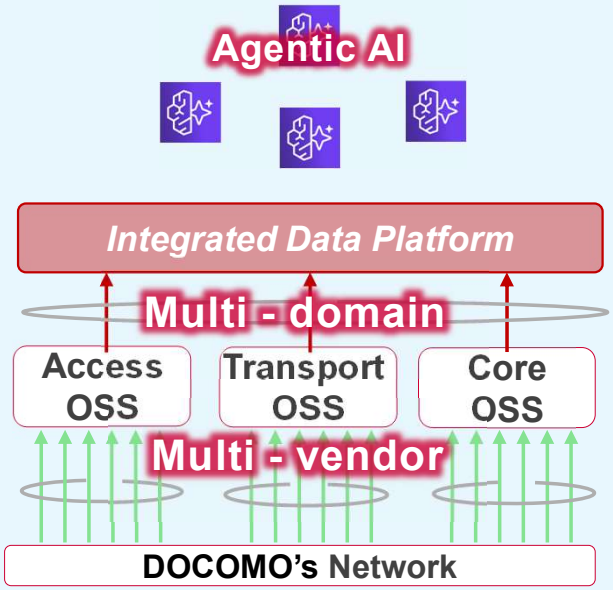
Multi-agent AI detects anomalies and recommends troubleshooting actions.



Key Points of DOCOMO's Agentic AI

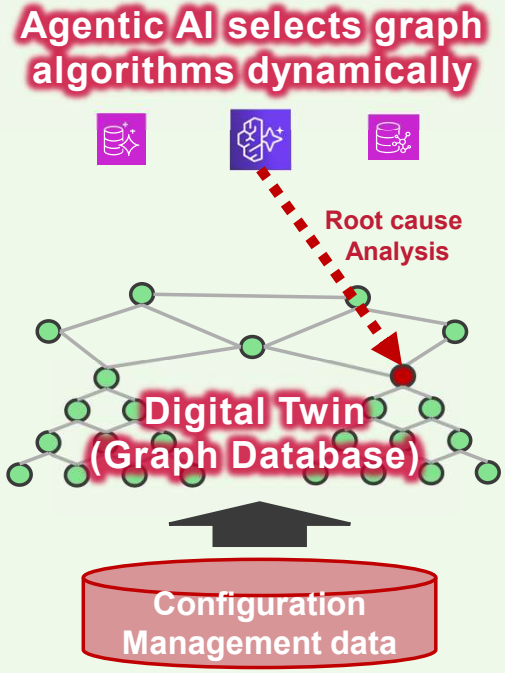
Integrated Data Infrastructure

Integrates network data from multiple vendors and domains



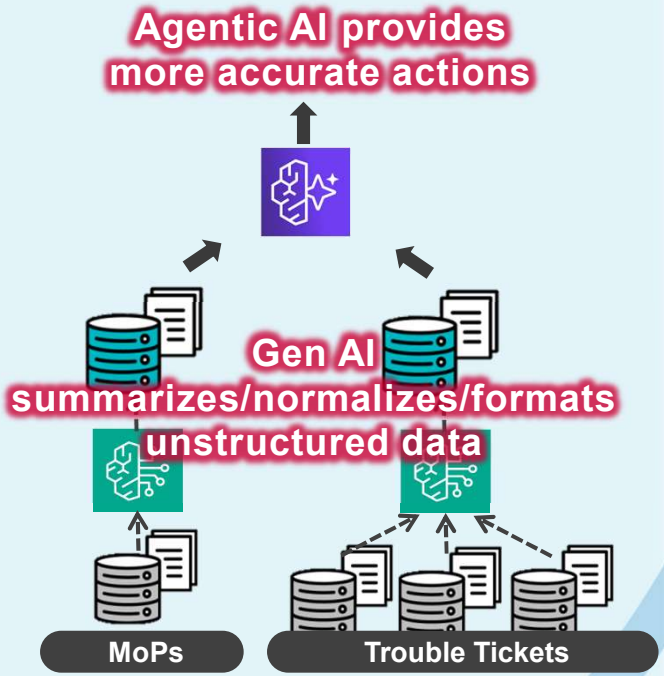
Advanced Root Cause Analysis

Delivers more accurate Root Cause Analysis (RCA) than traditional rule-based methods

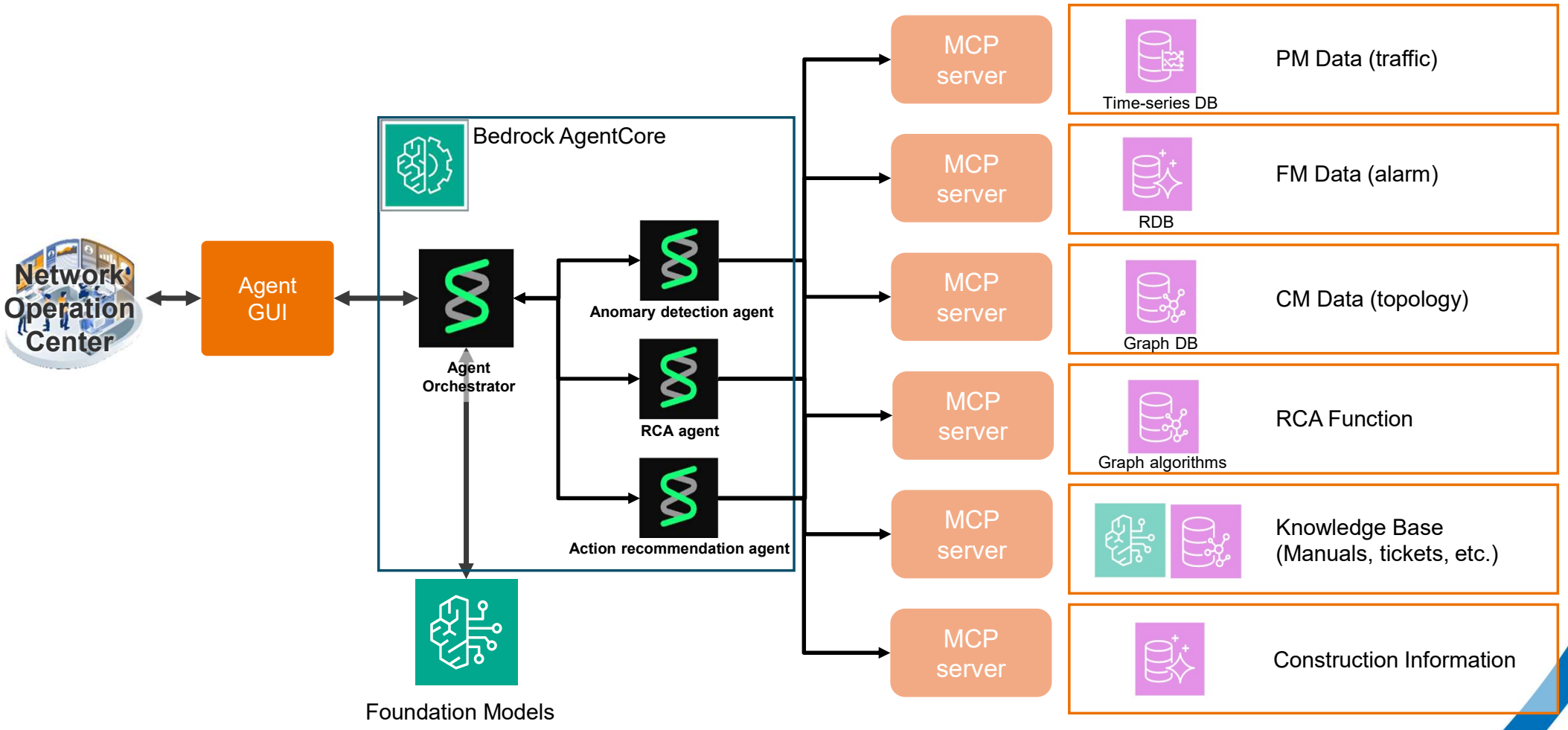


Intelligent Troubleshooting Recommendations

GenAI generates knowledge from past troubleshooting tickets

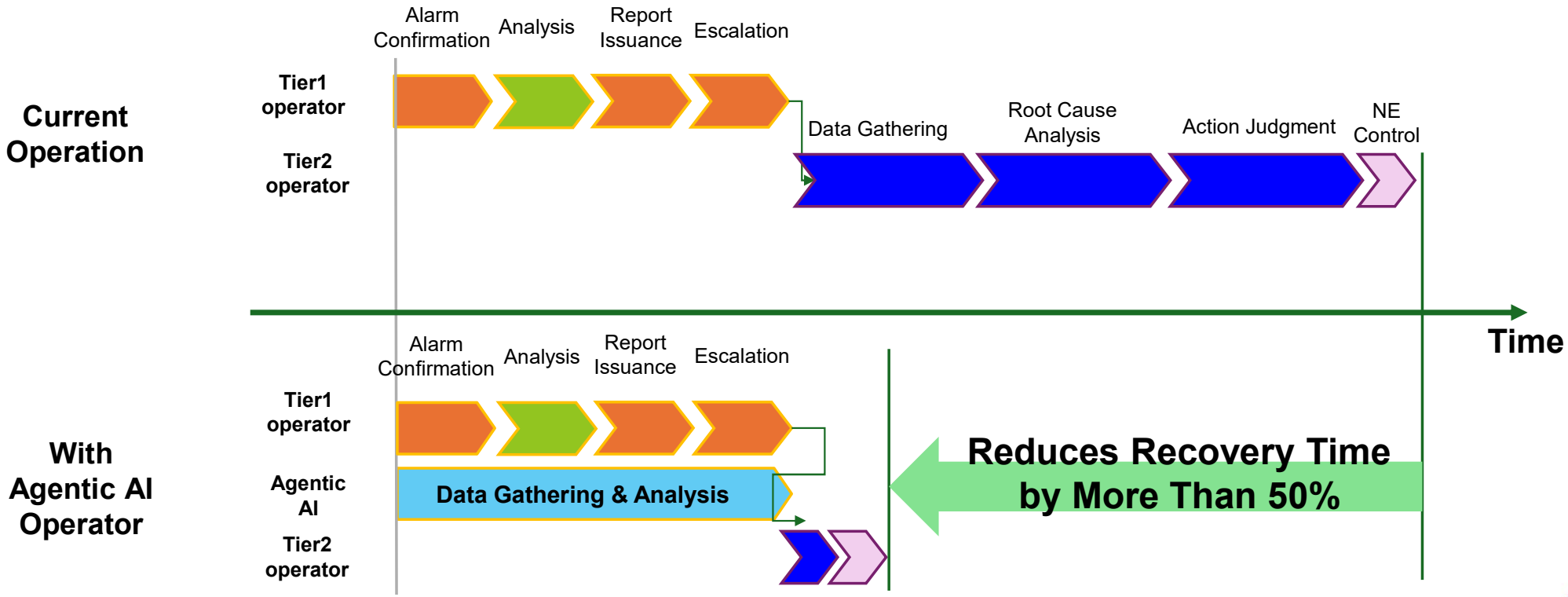


Architecture of Agentic AI system



Commercial Use Case

- Handles complex fault cases requiring in-depth analysis.
- Reduces recovery time by more than 50%.



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