R&D phase | Research **Expected Commercialization** | FY27-

Mehr Licht!
More Photonics for Intelligence

#E05

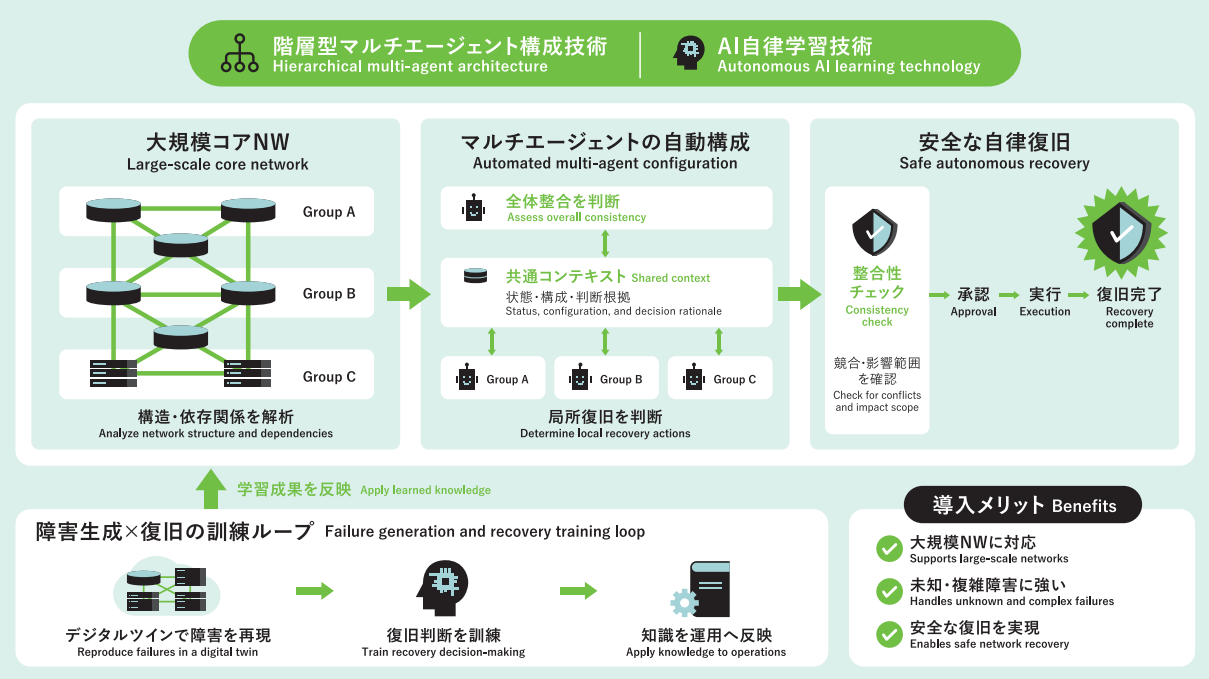
#Operational Efficiency#Safety and Security#Resilience

Self-Learning Network Recovery Agents

Collaborative AI agents autonomously recover large-scale networks

Technical Challenges & Goals

As networks grow larger, rapid failure recovery is essential. Single-agent systems struggle with complex failures across many devices and often stop at analysis. Collaborative AI agents autonomously recover networks and learn responses to unknown failures, reducing downtime and operational workload.



Key Technologies

Core Technologies

- Hierarchical multi-agent architecture that groups devices and coordinates specialized agents
- Self-learning loop using simulated failures and recovery training for unknown incidents

Key Differentiators

- Coordinated agents recover networks with dozens of devices, unlike single-agent systems
- Executes approved recovery actions instead of stopping at analysis or procedural guidance

Use Cases

Information Technology (IT)

In telecom network operations, collaborative AI agents collect device data and autonomously execute failure isolation and recovery. This reduces service downtime and the workload of network operators during large-scale incidents.

Exhibitors

NTT Network Service Systems Laboratories

CONTACT：Communication Traffic, Quality and Operation Research Project