**R&D phase** | Research **Expected Commercialization** | FY29-

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#E06

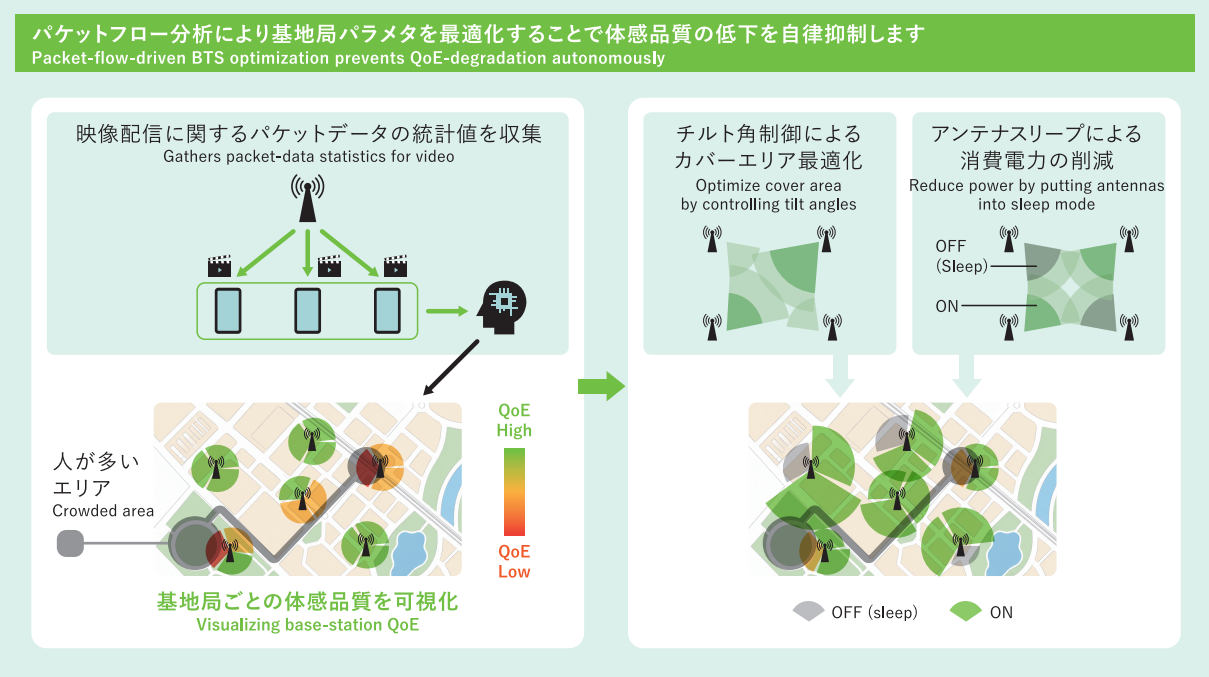
#Operational Efficiency#Digital & AI Transformation

# Optimizing Base Stations to Maintain QoE

Packet-flow-driven BTS optimization prevents QoE degradation

## Technical Challenges & Goals

To support diverse services, a mobile network requires optimized base-station parameters. Conventional methods rely on time-consuming manual tuning, and network metrics do not always reflect user QoE. Packet-flow-driven control automates optimization and rapidly prevents QoE degradation.




## Key Technologies

### Core Technologies

- It estimates and visualizes video QoE for each base station from terminal download statistics
- It automatically determines antenna sleep modes and tilt angles from base-station statistics

### Key Differentiators

- Identify low-QoE areas and base stations through QoE estimation from packet-flow data
- Optimize base-station parameters by estimating user and quality distributions from cell-level data

## Use Cases

**Communication Services**

In cellular networks, AI-driven base-station optimization maintains video QoE during unexpected events such as severe weather and equipment failures, while minimizing operator workload.

**Exhibitors**

Network Service Systems Laboratories, NTT, Inc.

**Related Links**

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