Complying with interface specifications for next-generation networks (NGNs*1), a system that can simply measure particular end-to-end network performance in various QoS*2 classes by connecting it with UNI*3 points was developed. Equipped with a remote control function and an automatic measurement and acquisition function, it can monitor the quality of NGNs from the user’s viewpoint without taking time from network operations. This system has been commercialized by NTT Group companies granted the rights to technical disclosure and commercially launched as a maintenance system for the FLET’S HIKARI NEXT*4.

**Overview**

Compliance with various protocols (SIP*5, DHCP*6, etc.) used in NGNs

Executable as a HGW*7 function, session request, virtual-packet generation, or a series of operations for QoS measurements

Application traffic for handling various QoS classes is simulated

Functions for measuring packet-transfer delay, delay variation, packet loss, call-set-up-delay, etc. are enabled

Improved efficiency by central control of measurement automatically and remotely from the control server, and results-collection function

**Features**

- Compliance with various protocols (SIP, DHCP, etc.) used in NGNs
- Executable as a HGW function, session request, virtual-packet generation, or a series of operations for QoS measurements
- Application traffic for handling various QoS classes is simulated
- Functions for measuring packet-transfer delay, delay variation, packet loss, call-set-up-delay, etc. are enabled
- Improved efficiency by central control of measurement automatically and remotely from the control server, and results-collection function

**Application scenarios**

- Operation and administration tasks of NGNs
  - Understanding of trends and degradation of quality by means of periodic measurement of end-to-end QoS
  - Detection of “silent faults” by end-to-end QoS monitoring
  - Verification of effect on network QoS when faults occur
- Operation and administration business of IP telephony services provided by NGNs

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* NGN: Next-Generation Network  
* QoS: Quality of Service  
* UNI: User-Network Interface  
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* SIP-UA: SIP User Agent

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* SIP: Session-Initiation Protocol  
* DHCP: Dynamic Host-Configuration Protocol  
* HGW: Home Gateway