Quality on Demand API

China Unicom tailors connectivity to users' requirements

Case study for consumer services using the CAMARA-standardised Quality on Demand API – View API Descriptions

Business Problem

During holidays, large-scale events or emergencies, local telecoms network traffic can surge, putting wireless base stations under pressure and compromising the stability and reliability of network services. Mobile operators can struggle to perceive (and adjust to) different service types in real time, leading to a poor user experience.

Technical Solution

China Unicom's SpeedLink app enables users to enhance their connection for a specific application for a specific amount of time. The platform employs the CAMARA-based Quality-on-Demand API to set key parameters, such as the specific data flow to be accelerated, and the desired session duration. The API interacts with the network infrastructure to enforce the service parameters, such as guaranteed bit rates, required to meet the user's latency and throughput requirements.

Impact

The Quality-on-Demand API can, for example, ensure that a mobile game or another application requiring very responsive connectivity will benefit from latency of just 20ms for 99.99% of the specified session. Similarly, the API can ensure a live streaming app can receive guaranteed uplink bandwidth.

Value

The SpeedLink app is increasing user loyalty, reducing churn and opening up new revenue streams from differentiated services, according to China Unicom. The operator enables customers to pay for a VIP acceleration package giving their connectivity priority over other subscribers. Alternatively, a live streamer can pay for guaranteed uplink connectivity.

"We have developed a scalable model for network service quality assurance in the 5G era. By identifying target services and monitoring service status at the base station level, the system offers real-time, hierarchical and elastic network assurance, improving network resource scheduling efficiency. As a result, users enjoy high-quality network services across various categories under large call scenarios, reducing service interruptions and performance degradation and boosting user loyalty."

China Unicom

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