Revenue Increase by improving Customer Experience

Traffic Management Solution

improves Quality of Experience (QoE) for end-users, increase mobile data usage and helps communication service providers (CSP) maximize return on investment (ROI)

Solution Concept

TMS (Traffic Management Solution), through implementation of various solutions, can improve Customer Experience and offer more comfortable environments to smartphone end-users. The solution helps CSPs to increase mobile data usage, to reduce CAPEX/OPEX and to generate new revenue streams for maximizing ROI.

- TMS, through implementation of Throughput acceleration, Traffic volume reduction and Monetization, can improve Customer Experience and offer the following key benefits to smartphone end-users for further loyalty commitment.
  1. More comfortable communication
  2. More cost-effective performance
  3. More secured & convenient service

These key benefits help CSPs to increase mobile internet usage, to reduce CAPEX/OPEX and to generate new revenue streams.

- TMS is deployed between CSPs’ LTE/3G system and the Internet.

Key Features

1. AGILITY: to dynamically and automatically configure proper optimization parameters in accordance with the latest traffic pattern while maintaining QoE

2. VISIBILITY: to create the reports of Network Performance and the Effect of Optimization

3. ANALYSIS: to detect problematic points in network, diagnose and improve network status based on NEC’s expertise

4. SCALABILITY: to enable highly scalable configuration, from small deployment (such as ~1Gbps) to larger deployment (such as a few Tbps), without affecting existing network equipment

5. CUSTOMIZATION: to flexibly customize the solution by adapting to the requirement of MNOs and MVNOs, having different focus and business models

QoE: Quality of Experience. It represents a service quality that users experience.
Traffic Management Solution

Menu of Solutions

Network Performance Visualization
The amount of traffic passing through TMS is aggregated and visualized to allow CSPs to see the current status of traffic on their networks. The visualized QoE information can be used to identify areas where network performance could be improved.

[Challenge for CSPs]
- To understand current network performance
- To understand where and what times QoE could be improved

Throughput Acceleration Solution
TMS stabilizes end-to-end communications as a mediator between mobile network and the Internet.
TMS optimizes TCP parameters dynamically based on network condition per subscriber for throughput acceleration to improve QoE.

[Challenge for CSPs]
- To increase data usage
- To improve overall QoE without investing in new base station infrastructure

Traffic Reduction Solution
TMS reduces traffic volume by media optimization.
TMS enables CSPs to reduce CAPEX by efficiently utilizing existing network assets.

[Challenge for CSPs]
- For MVNO to curb data traffic overflow for bandwidth capacity leased from MNOs
- For MNOs to curb data traffic within network capacity that existing assets can accommodate

SSL Encrypted Video Pacing Solution
TMS can reduce mobile data traffic volume up to 30% while maintaining QoE for end-users. This reduce rate is achieved by NEC’s unique algorithm to identify the content types of HTTPs and optimized traffic control measures based on the type of content.

[Challenge for CSPs]
- To facilitate the effective use of network bandwidth while maintaining high QoE for end users.

Monetization Solution
TMS can provide Mobile Advertisement function and URL filtering function for end-user’s access to web-sites.

[Challenge for CSPs]
- To provide more secured and enriched service for customer experience improvement
- To build up new Business Model

Cases
- **For MNO customers**
  - Background and Purpose
    Use of smartphone is highly penetrated and tiered data plan is introduced. However, revenue does not grow as much as expected.
  - Expected Results
    Thanks to the Throughput Improvement Solution, more comfortable communication was achieved and the traffic usage is increased accordingly.

- **For MVNO customers**
  - Background and Purpose
    Due to rapid increase of end users, bandwidth leased from MNO is almost exceeding the contract capacity. MVNO wants to curb the cost paid to MNO by efficiently utilizing network bandwidth.
  - Expected Results
    Payment to MNO is curbed as a result of traffic usage reduction by Traffic Reduction Solution.

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