QoE optimization

**Measure and optimize
the real Quality of Experience
perceived by your customers**

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QoE optimization with Augura

Quality of Experience (QoE) is the component of Customer Experience related with the Quality of Service (QoS) delivered by the CSP. It's based on the subjective quality of service perceived by the Customer **and it's one of the most important KPI for him.**

Over half of the customers unsatisfied with the quality of the service are willing to change Operator. Yet the quality perceived by the user can differ to the quality of service delivered by the Operator.

Here's a simple **example** to help understand the situation: one of your customers has a relatively old smartphone, and whilst watching videos on YouTube these tend to stop frequently when being reproduced. So, the user's experience is pretty bad, and they are most likely to blame the Operator for their poor connection. In the meantime, the Operator has been measuring the client's QoS and all the parameters give good results. However, the unhappy user changes Operator and with the change acquires a new smartphone. The customer's QoE is rapidly increased reaffirming their conclusion. The customer has become a detractor without there having been information to detect this.

Therefore, we should measure the QoE perceived by the user so that we can anticipate and increase customer satisfaction and complement QoS measures.

With **Augura QoE Optimization** solution, not only can we obtain a QoE measurement of all your customers but also integrate it in the Operator's current processes to improve customer satisfaction, reduce associated customer care costs or assist in the prioritization of the company's investments.

Telecom operators should focus on QoE perceived measurement & optimization

what is QoE and how is it measured?

QoE, or **Quality of Experience** is a measurement of customer satisfaction of experiences with services (eg, browsing, calls, video streaming….). QoE focuses on the entire service experience; it is a holistic concept, similar to User Experience, but centered in telecommunications services.

In 2013, within the context of the COST Action QUALINET, QoE has been defined as:

The degree of delight or annoyance of the user of an application or service. It results from the fulfillment of his or her expectations with respect to the utility and / or enjoyment of the application or service in the light of the user's personality and current state.

To measure QoE, **Mean Opinion Score** (MOS) is widely used. It is a measure used in the domain of Quality of Experience which represents the overall quality of a system. MOS is a commonly used measure for video, audio, and audio-visual quality evaluation, but not restricted to those modalities. ITU-T has defined several ways of referring to a MOS in Recommendation P.800.1, depending on whether the score was obtained from audio-visual, conversational, listening, talking, or video quality tests.

Augura QoE solution proposes to improve the calculation of the QoE, recommended by the ITU surveys, at specific times of use of services by customers which will permit including users personality in the calculations.

what are the benefits of measuring QoE?

There's no doubt that having QoE for each user has its direct benefits for the Operator. First, the operator should implement a solution that allows him not only to measure the QoE perceived by the users, but also to identify the causes that generates dissatisfaction in the customers, and the associated technical parameters.

Once the operator has this information, it could obtain great benefits. The most relevant are:

1. **increase satisfaction and reduce churn:** using QoE knowledge and underlying analytics processes to optimize the QoE. The information about the QoE perceived by each customer could be shared to different processes, areas and systems in the company. And some corrective and preventive actions could be done with the customers, increasing Customer satisfaction, thus reducing churn

2. **reduce OPEX**: using the information that underlies QoE measurement and rule generation to automate actions to speed up service quality control, improvement or restoration. At the end, the operator is reducing OPEX and increasing customer satisfaction at the same time!

3. **reduce CAPEX:** Using the insights obtained to prioritize CAPEX, acting over the technical parameters that impact most on QoE perceived by the customers, and discarding investments on some network parameters that have no impact on the Quality of Experience perceived by the customers.

4. **improve ROI of marketing campaigns:** With QoE information available the operator can enhance customer relationships (customer care, marketing campaigns, churn prediction...). The marketing managers could target each customer with the right offer with better information, since QoE gives them the real perception of the Customers.

There are some secondary benefits, but only with these major benefits, the operator will have taken an enormous step towards a customer centric organization, with real and quick benefits for the clients, and with very important returns for the Operator.

Until now, the monitoring of network parameters hid real problems in the clients' experience, and did not allow to discover many causes of dissatisfaction and churn in the operator. The measurement and optimization of perceived QoE is the natural step that every operator must consider to optimize the relationship with their customers.

how does Augura propose to solve this?

To obtain the QoE metrics, Optare QoE optimization installs sw agents on the customers' end devices. These devices can be mobile phones, set top boxes, devices designed to perform these measurements...
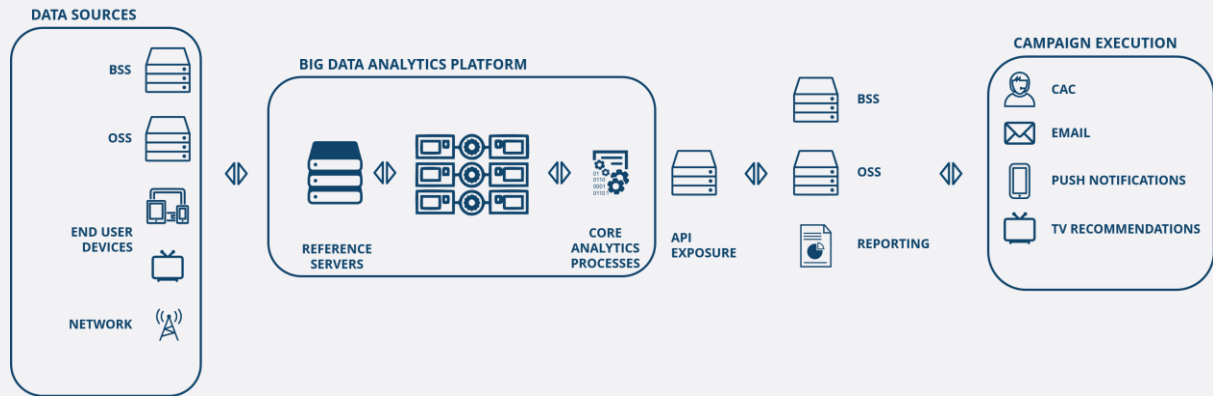
In the backend of the platform the user configures the metrics, diagnostics and measurements to be executed to customize each test and define real use cases. Some end to end metrics are already pre-configured (VoIP, web browsing, video streaming, online gaming....). The reconfiguration of metrics does not imply updating the agents. Metrics can be executed on demand or on a scheduled basis.

Use Augura (data analytics platform) over the data retrieved by devices, B/OSS systems and other network elements to deliver new insights to improve and maintain the services

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which functionalities are included in the platform?

Augura QoE Optimization solution includes some functionalities out of the box, to cover most of the requirements the Operator could have.

1. **end to end metrics**: QoE solution is designed to obtain E2E metrics on most interesting services for the operator, considering benefits and current customer needs, and with capability to add new services and metrics. Some services are preconfigured:

   - VoIP
   - web browsing
   - video streaming
   - online gaming
   - …

   Each metric can be decomposed into several measures, that can be re configured or grouped to conform a new test simulating, for example, a real user behavior.

2. **metric configuration management:** User can create, modify and erase metrics, diagnostics and measures in order to customize a test or to define new simulation. Programmed tasks can be configured from the backend as well as the remote configurations of metrics digits and measurements

3. **remote device management:** The QoE optimization solution has its own inventory of devices, so the Operator could search and examine measurements for any device. Added to metrics, diagnostics and measure remote configuration, the executions over the remote devices (user agents & simulation devices) can be configured programing jobs from the backend.

4. **QoE data analytics:** Using the capabilities from Augura (Optare Telecom Analytics Service) over the data retrieved by QoE Solution can deliver new insights that can be used to improve and maintain the services.

5. **alarm management:** User can create, modify or erase alarms and their consequences. Adding to that,users will receive predictive notification alarms based on trends.

6. **real time monitoring & reporting:** standard reports and dashboards are pre-configured, but it's possible to develop any personalization to fulfill the Operator requirements

conclusions and additional information

Obtaining and optimizing the QoE perceived by the users has become a critical task for Operators. On the one hand knowing if and when users have some kind of irritation with the use of services, helps to prevent churn. On the other hand having this information helps to reduce the OPEX, and prioritize the CAPEX in those network parameters which have a greater relevance in the improvement of QoE.

DEMO

Request a demo

Request a demo of QoE Optimization Solution to discover all the possibilities to your Operator.

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Increase Customer Satisfaction with Augura QoE Optimization Solution

Augura, powered by Optare Solutions, offers a Managed Service for Telco Marketing Managers designed to extract valuable and actionable insights from your data and translate these insights into real actions in your company to increase revenues.

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