

Telecommunications Quality of Service Contractual Indicators for Developing Countries

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Summary

Customer satisfaction is the corner stone in quality of service (QoS) in telecommunications. Contractual matters form an important stage in QoS recommendations. The telecommunications services contractual aspect is an essential legal documentary process for customer rights reservation. Developing countries, is suffering from the lack of legal awareness and low financial income. This in turn leads to significant disputes between customers and service providers (SP) due to inadequate contracts. This paper proposes a new and updated trend for the contractual behavior taking into consideration so many factors. Some of these factors are: customers legal level of contractual understanding, customers awareness level, technical regulator/SP agreements, variations of different service providers that offering similar services, safety considerations, operational precautions, governmental restrictions, and ITU directives for bridging the digital gap.

The presented contractual updated trend is categorized into two approaches. The first category addresses contractual issues between the regulator and the SP (legally professional for inservice QoS and operational conditions). The second addresses contractual issues between the SP and the customer (supervised and approved by the regulator). According to the proposed scenario, ICT regulatory authority has the right to provide, approve and monitor the articles, terms and conditions of the contracts in a high professional level in order to achieve the customer rights reservation and QoS satisfaction goals. The proposed contractual framework is recommended to be consented and deployed by the regulatory authority considering the current status of the ICT market in the developing countries.

Key words:

Quality of service, QoS, regulator role, contractual issues

1. Introduction

Customer satisfaction is the dominant factor of the telecommunications Quality of service (QoS) measures [1]. A new trend has been introduced regarding the pre-launching QoS issues namely, the Non-utilization QoS parameters.

An important section of the pre-launching QoS parameters are the contractual matters. These constitute the first stage in the ITU Recommendation E.803 [2]. However, in this

respect, that recommendation has paid little attention to the status of the developing countries. Although the Recommendation covers the relationship between the Service Provider (SP) and the customer, it neglects many important factors concerning customers in developing countries. In particular, such customers suffer from lack of awareness, limited educational level, low GDP and non-identification availability. These factors will negatively impact the interactive relation between SPs and customers.

Such a situation dictates the necessity of introducing additional parameters to complement the contractual matters in the Recommendation by introducing the regulatory authority as a third party to preserve the customer rights.

This paper proposes two additional contractual categories that target the issues between the regulator and the SP:

- some of the parameters not stated among the contractual matters in the Recommendation do really serve the contractual matters.
- a new set of parameters is proposed by he authors to serve the needs of the developing countries.

The two newly suggested sets together with the original set of parameters collectively are expected to support customers to choose the adequate services according to their needs.

The authors believe that the non-utilization QoS' contractual parameters will encourage, control and monitor the contractual terms, conditions, articles understandability, flexibility and fairness of quality, that are provided by the SP to enrich customers satisfaction and protection.

2. Method

This paper proposes a new scenario consisting of three contractual categories:

- the original contractual parameters in the same fashion as presented by the ITU-T E.803 Recommendation [2]. They are only four

parameters (G1–G4) forming the elements of the contract between the SP and the customer.

- Some parameters are scattered in different places in [2], where they are serving their original purposes. However, the authors believe that they should be used also with the contractual matters. There are five of them (G5–G9). They are suggested to be part of the contract between the regulatory and the SP.
- The set of the newly introduced parameters governing the contractual issues between the regulator and the SPs. There are 12 of such measurable and reportable parameters (G10–G21).

3. The new set of Contractual Parameters

In this paper, the contractual parameters are enumerated sequentially with the number preceded by the letter 'G'. Parameters stated in E.803 [2] hold their original names and definitions. Section 3.1 is dedicated for the original contractual matters found in the Recommendation. Section 3.2 contains parameters scattered in different stages in [2] which should be added to the contractual matters without dislodging them from their original stages. The new parameters suggested by the authors are stated in Section 3.3.

3.1 Contractual Matters Quoted from the Original Recommendation (Stage 1)

These parameters are quoted directly from Stage 1 of the Recommendation [2] for the sake of reference and completion.

G1 Integrity of contract information

Def: "True and fair view of pertinent information on supply, maintenance and cessation for a telecommunications service provided by a SP.

NOTE 1 A contractual document describing the supply, maintenance and cessation for a telecommunication service by a SP is clear, accurate, complete, understandable and unambiguous.

NOTE 2 The language, phrasing and expressions chosen are aimed at maximum understanding for the target customer segment" [2].

Measured by: opinion rating.

Source: Parameter 5 in [2].

G2 Compliance of contractual terms with preliminary information

Def: "Degree of concurrence of the contents of

the contractual document to the Preliminary Information (PI). This comparison between contractual terms and PI should be based on the PI in force during the period of the contract. Contractual document could have detailed terms which were implicit in the PI. Where differences exist these are not to be considered as errors as long as additional and non-contradictory information is provided" [2].

Measured by: opinion rating.

Source: Parameter 5 in [2].

G3 Flexibility for customization before contract

Def: "The scope and boundary to meet individual customer's specific requirements of service feature(s), service performance(s) and terms and conditions before formal signature on the contract.

NOTE These specific requirements would be departures from the standard service features, performance and terms and conditions normally offered by the SP" [2].

Measured by: opinion rating.

Source: Parameter 7 in [2].

G4 Ease and flexibility to amend terms after formal contract

Def: "The scope and boundary of the amendments that could be accommodated to contractual terms to satisfy the post contractual amendments sought by a customer. This excludes contracts which the provider has specifically stated as not considered for amendments" [2].

Measured by: opinion rating.

Source: Parameter 8 in [2].

3.2 Contractual Matters Gathered from Different Stages in the Original Recommendation

G5 Organizational efficiency of service provider to carry out service alteration

Def: "Organizational and hardware resource availability to carry out service alterations to meet the needs of the customer and/or to meet contractual promises" [2].

Measured by: opinion rating.

Source: Parameter 25 in [2].

G6 Time for technical upgrade of a service

Def: "Time elapsed from the instant the technical upgrade period was announced

to the user to the instant the technical upgrade was carried out" [2].

Measured by: time.

Source: Parameter 26 in [2].

G7 Organizational efficiency of service provider to carry out technical upgrade

Def: "Organizational and hardware resource: availability on the part of the SP to carry out technical upgrades to meet the needs of the customer and/or to meet contractual promises" [2].

Measured by: opinion rating.

Source: Parameter 34 in [2].

G8 Documentation of delivery time

Def: "Time taken from the instant a service is provided to the instant documentation for the commissioning and use of the service is delivered to the customer.

NOTE Documentation not delivered before a specified time-out will be considered as not delivered in time" [2].

Measured by: time.

Source: Parameter 36 in [2].

G9 Overall reliability of documentation services

Def: "Consistent availability, integrity and speed of provisioning of the documentation and associated support activities provided by the SP for a given service" [2].

Measured by: opinion rating.

Source: Parameter 41 in [2].

3.3 Contractual Matters Suggested by the Authors

G10 Regulator service restrictions (VOIP, filtering, etc)

Def: It is the ratio of the number of pre-specified or ad hock services restricted by regulator to the total number of allowed services.

It is determined by the regulator to deploy governmental policies.

Measured by: percentage.

G11 Multi-license layers owned by a single entity

Def: It describes the situation where a unified license for both service and operation is owned by a single player contradicting the international recommendations.

Note: Licenses are not layered in some developing countries.

Measured by: opinion rating.

G12 Contract period per service

Def: It specifies the contract period for each service. Such periods are determined and approved by the regulator according to the current market indicators to satisfy the competition requirements.

Measured by: time.

G13 Safety and operational precautions level

Def: It is the level of the adoption of the international safety and operational recommended standards.

Measured by: opinion rating.

G14 Regulator independence level

Def: It is the level of independence of the regulator from any other ICT market player. Regulator independence is internationally recommended to provide fair, powerful, transparent and controllable policies. Regulator independence level directly affects the contractual indicators.

Measured by: opinion rating.

G15 Flexibility of service alteration

Def: It is the degree of service compatibility with the dynamic technical, organizational and operational local and international alterations.

Measured by: opinion rating.

G16 Uniform contractual policies and indicators for similar services of different SPs

Def: It specifies the importance of uniform fair and transparent contractual treatments for different SPs per similar services. It assures Regulatory independence.

Measured by: opinion rating.

G17 Market indicator level per service (competition level, penetration rate, customer needs, service importance, ... etc)

Def: This parameter justifies the adoption of a given service. It determines service efficiency level with respect to the market indicators. It decides service importance level. It implies customer satisfaction.

Measured by: opinion rating.

G18 Service compatibility level with the initial governmental agreement with the SP

Def: It determines conformance of the service

specification and details with the agreed upon level.

The pre-stated governmental agreement with the SP should be consistent with the contract articles: technical, financial and administrative articles of the initial agreement.

Measured by: opinion rating.

G19 Service content

Def: It reflects the nature of the content. The nature of the content should be approved by the regulator complying with the governmental policies and regulations.

Measured by: opinion rating.

G20 Equipment and networks Conformity level per service

Def: It is the conformity of equipment and networks specifications with local and international standards.

Measured by: opinion rating.

G21 Billing verification

Def: Billing issues should be clearly stated at the contract level before formal signature. It should be handled and approved by the regulator.

Measured by: opinion rating.

4. Discussion

The second and the third categories are introduced by authors to bridge the absence of a very influential contractual part regarding the relationship between the regulator and SP. They cover unmentioned contractual matters throughout the ITU-T E.803 recommendation.

4. Conclusion

- The introduction of the above mentioned 12 parameters (G10–G21) may enrich and complement the ITU-T E.803 recommendation in the contractual matters. Consequently, this may help a lot in the achievement of QoS goals.
- It is recommended that the targeted parameters, as given in this paper, to be approved and deployed by the regulatory authorities in order to enhance QoS and customer satisfaction.
- The paper emphasizes on the importance of role of the regulator in reserving the customers rights.

References

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