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Abstract

Summary

At the telecommunication market, most **Service Provider** is faced by Business Transformation. One big challenge during the business transformation should be how to:

- offer more flexible service choice to Service Customer/User,
- provide more Customer/User involved role in the service,
- increase a quality of communication between Customer/User and Service Provider,
- increase availability of the service,
- provide Customer/User self-help in telecommunication &
- reduce the service operation cost.**

Customer/User self-service in telecommunication is a **real** way to provide all that benefits for the Customer/User and, at the end, to help Service Provider to reduce his operation cost.

Very important note: Service Provider TARGET shall be to reduce service operation cost, but quality of the service, IN ALL ASPECTS, must be BETTER.

To have this new **SERVICE**, we, as **SG4**, have to define **MANAGEMENT SELF-SERVICE**, what will be the **BASE** for implementation of Customer/User Self-service in **all type of telecommunication** (traditional network and telecommunication, NGN, etc.)

This document provides a basic description of Customer/User self-service in telecommunication, Service Customer/User and Service Provider benefits and generic framework for Management Self-service.

Keywords

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Customer/User Self-service, Management Self-service, Customer/User, Interface C/U, Interface S, Management Self-service menu, Universal access.

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Customer/User Self-service in telecommunication & Management Self-service

1 Scope

This document provides a generic framework for Management Self-service and a basic description of Customer/User self-service in telecommunication. This document also illustrate benefits and application of Customer/User self-service in telecommunication, and give basic structure of Management Self-service.

2 References

ITU-T Recommendation X.yyy (date), *Title*

ISO

IEC

3 Definitions

3.1 Terms defined elsewhere:

- 3.1.1. Service provider:
- 3.1.2. Customer:
- 3.1.3. User:

3.2 Terms defined in this Document

- 3.2.1 Customer/User:
- 3.2.2 Customer/User Self-service in telecommunication:
- 3.2.3. Manegement Self-service:
- 3.2.4. **Interface C/U:**
- 3.2.5. **Interface S:**
- 3.2.6. Customer/User profile:
- 3.2.7. Customer/User expirience:

4 Abbreviations

5 Conventions

In this document the **end user** of the Customer/User self-service can be Customer, and User with valid autorization got from the Customer. From that reason tought the document is use term Customer/User. Autorization allso meen that via autorization, Customer will determine at what way User can use Customer/User Self-service.

6 Basic objective of Customer/User Self-service in telecommunication

Customer/User Self-service in telecommunication is generally a new kind of service. This service has to provide to the Customer/User new possibility and benefits in service. At the same time, and Service provider will, **and must have benefits**, and Service provider final target will be to reduce operational cost and increase a quality of the service.

Customer/User benefits and possibility:

- more involve Customer/User role in the service (managed possibility).
- easier access to the Service provider.
- self service configuration as:
 - 1) Service selection,
 - 2) Resource and service availability check,
 - 3) Service change (Service Parameter self -configuration),
 - 4) Service pause,
 - 5) Service restriction,
 - 6) Etc.
- self-help trouble shooting.
- self-service ordering.
- self billing.
- possibility to offer a real Customer/User experience to the Service provider.**
- self & self-help ...

Service provider benefits and possibility:

- possibility to use a real Customer/User experience,**
- possibility to create a real quality Customer/User profile, based on the Customer/User acts,
- reduce maintenance cost,
- reduce operation costs,
- reduce marketing costs,
- INCREASE A QUALITY OF THE SERVICE,**
- INCREASE PROFIT.**

7 Basic objective of Management Self-service

Management Self-service has to:

- provide to the Customer/User to use, at easiest way Customer/User Self-service.
- provide “real” communication between Customer/User and Service provider.
- at the end, to manage previous define Customer/User demands (benefits and possibility) from Customer/User Self-service, on the Service Provider premisses (Service equipment).

8 Management Self-service structure

Management Self-service is basically consist of:

- Hardware,
- Software,
- Interface S &
- Interface C/U

8.1 Hardware & Software

8.1.1 Purpos of Hardware & Software is to:

- provide Customer/User Self-service in telecommunication,
- manage defined requirements from the Customer/User to the Service provider,
- provide communication between Customer/User and Service Provider,
- keep all data, information, changes, requirements etc. from the Customer/User Self-service,
- keep all data and information about Customer/User profile,
- evaluate Customer/User profile,
- "take care" about Customer/User experience,
- etc.

8.1.2 Physical position of Hardware & Software

- Hardware & software can be generally independent from the Service equipment,
- In the futur, Hardware & Software has to be integrate with the Service equipment.

8.2 Interface S

- Interface from the Management Self-service toward Service provider,
- provide the Management Self-service communication with Service provider,
- provide via Manegement Self-service communication between Customer/User and Service provider.

8.3 Interface C/U

- Interface from the Manegement Self-service toward Customer/User,
- Provide Customer/User communication with Manegement Self-service,
- Provide Customer/User communication with Service provider, via Manegement Self-service,
- Provide Customer/User universal access to Manegement Self-service.

Interface C/U requirements:

- Access is independent from type of service,
- Customer/User acessibility to Manegement Self-service is high priority,
- Data and information protection is high priority,
- Customer/User protection is high priority.

Management Self-service menu must be friendly organized, and lead Customer/User through him at the easiest way.

Basic content of the Management Self-service menu:

- self- service configuration,
- self-service trouble shooting,
- billing,
- part of the menu for “Customer/User experience”,
- self-service check,
- service information,
- etc.

Security Considerations

Management Self-service may contain confidential and important data and information about Customer/User, and from that reason, data and information security must be a high priority.

For the secure use of a Customer/User Self-service, the following items need to be considered.

- Authentication: This is required to verify claimed identity,
- Authorization: enables certain actions after authentication. This ensures that only authorized Customer/User can be allowed to access to Customer/User Self-service (Management Self-service),
- Confidentiality: Data and information should not be handled by unauthorized entities,
- Integrity: Ensures the data is not modified in transition,
- Non-repudiation: Ensures that the origin of the received data should not be denied by the sender,
- Communication security: This function ensures that data and information flows only between the authorized end points (Customer/User with authorization and Management Self-service/Service provider),
- Availability: This function ensures that there is no denial of authorized access to Management Self-service,
- Privacy security: This function provides data and information protection from disclosure to an unauthorized entity.

Accessibility to the Management Self-service is also high priority, especially for the business Customer/User, same as an universal access to the Management Self-service.

Management Self-service has to be automatic, without direct communication between Customer/User and Service provider operator.

All data, information, changes, requirements etc. from the Customer/User Self-service must be kept (confidentially) in pre-defined period, and Customer/User must have access to this information directly.

Management Self-service must keep “inform” Customer/User about new service features, benefits and rates.

Management Self-service will store data and information, about Customer/User experience, and use this information to improve a quality of the service and get a “real” Customer/User profile.

APPENDIX I

Scenario of Customer/User Self-service

Service: mobile (bussines group)

Customer: Company

Users: employers

Access to the Manegement Self-service: Via internet

How: www.MSS Menu adress/personal identification number

Select from the Menu: Self-service configuration:

For the number 0XX/xxxxxxx0: in period, only recived calls,

For the number 0XX/xxxxxxx1: in period, only recived calls and dial numbers from the group,

For the number 0XX/xxxxxxx2: possibility to dial only next 3 number 1), 2), 3).

For the number 0XX/xxxxxxx3: monthly amount is, after that dial only number

Select from the Menu: Self-service chek:

Number 0XX/xxxxxxx3 is not available at the moment: chek (is it problem with the network, or mobile phone is turn off?)

Select from the Menu: Customer/User expirience:

In region signal is very low,

In region mobile service is not available.

Select from the Menu: billing/billing chek: for the numbers 1), 2) and 3) in period they spend?

Select from the Menu: billing/pay the service (electronic conformation, no more paper bill, no more going to the bank, spend time, pay provision....)
