

Heuristic Evaluation.

BEAM & IPCC



INTRODUCTION



EXECUTIVE SUMMARY



ABOUT HEURISTIC EVALUATION



HEURISTIC PRINCIPLES



EVALUATION & PRIORITIZATION MATRIX



IMPACTS – BUSINESS & PERFORMANCE



RECOMMENDATIONS

Introduction



As part of the SKIN engagement's design life cycle, Heuristic evaluations has been employed to find usability problems with the current systems being used by the agents. The idea is to determine design guidelines which can be adopted in the to be proposed SKIN designs.

Executive Summary



- This report provides a detailed analysis of the heuristic evaluation process used to evaluate Beam & IPCC. It also provides analysis of the Service Management System (SMS) used for Black and AgilityGIS used for C-Fiber.
- The evaluation itself was performed using the heuristic evaluation usability method, based on 10 heuristic principles provided by Jakob Nielsen. This method consists of evaluators comparing a pre-defined set of usability principles to an application to complete a system task.
- This report begins with an overview of the heuristic evaluation technique in general, the specific goals of this project, and the heuristics used in our walk-through of the application.
- It is followed by summary of the key issues identified by the heuristic evaluation and a more detailed exploration of the findings related to these specific problems prioritized according to their severity and impact on the user experience.
- The usability problems found from this evaluation are ranked according to their severity and ease to fix with which the problem can be solved.
- The report concludes with recommendations which will be incorporated in the new designs which should lead to improvement the way business is conducted and the performance of the agents using the systems.

Heuristic Analysis



DEFINITION

According to renowned usability expert Jakob Nielsen, a “heuristic evaluation involves having a small set of evaluators examine the web/application software interface and judge its compliance with recognized usability principles (the ‘heuristics’)”



METHOD

A heuristic evaluation or expert review of the BEAM, IPCC, Service Management System and AgilityGIS applications were carried out by 5 evaluators based on a set of predetermined heuristics and qualitative guidelines.



PURPOSE

The main goal of heuristic evaluations was to identify usability problems associated with the design of user interfaces.

Heuristic Principles



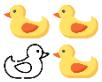
Visibility of system status



Match between system and the real world



User control and freedom



Consistency and standards



Error prevention



Recognition rather than recall



Flexibility and efficiency of use



Aesthetic and minimalist design



Help users recognize, diagnose, and recover from errors



Help and documentation

Evaluation & Prioritization Matrix



To further understand the impact of these issues, we have estimated both its severity in terms of usability principles and the various level of ease with which these issues might be solved. This resulted in a dual rating for each problem found, which was used to prioritize the issue areas. The tables below define the 'severity levels' and 'ease of fix' levels.

SEVERITY LEVELS



Low Severity – Basic Interface level issues



Medium Severity – Moderate level system Usability issues.



High severity - Major usability issues, It is important to fix, so it should be given high priority.

EASE TO FIX LEVELS



Easy to Fix - will require minimum effort, including less investigation into the issue.



Medium Fix – will require a more concentrated effort, but the issue can be solved



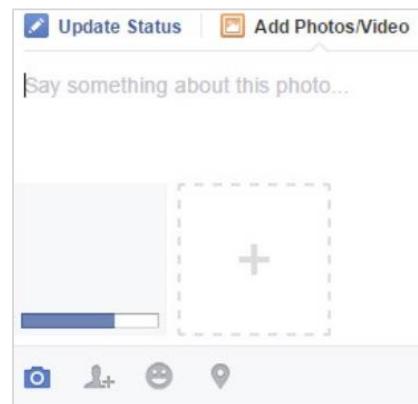
Hard to Fix - will require maximum effort, including a thorough investigation.



Visibility of System Status

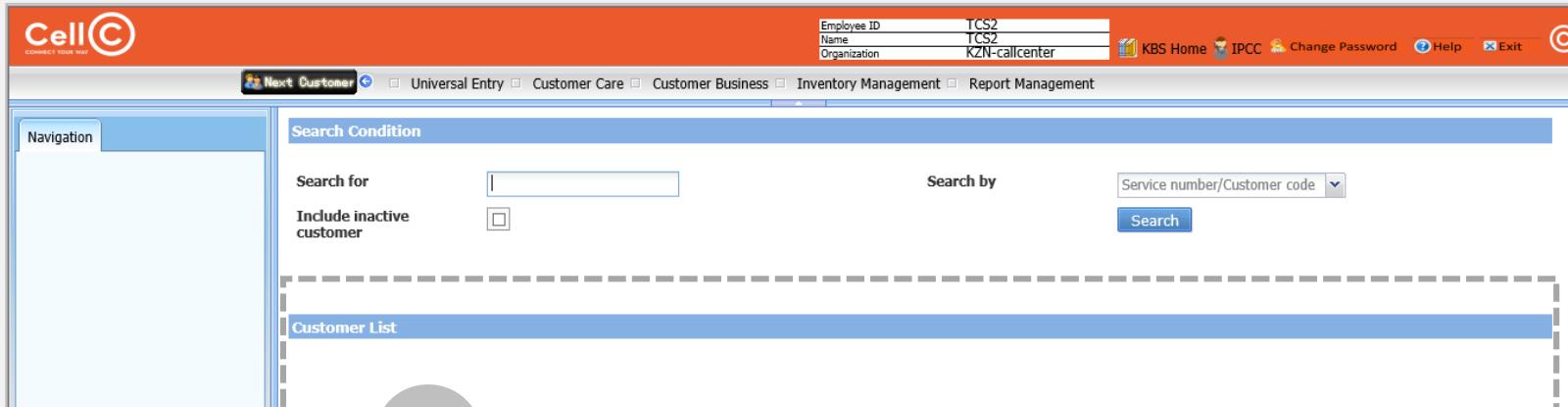
The system should always keep users informed about what is going on, through appropriate feedback within reasonable time.

Example: Facebook's photo upload process



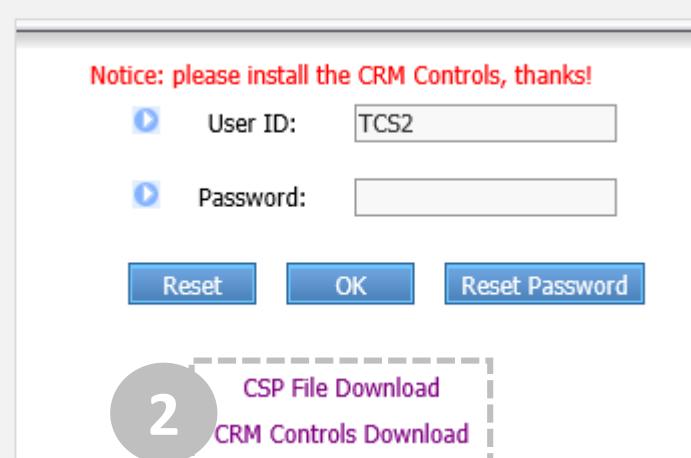
Visibility of system status

The system should always keep users informed about what is going on, through appropriate feedback within reasonable time.



ISSUES

- 1 **Customer List section is not required to be shown upfront.** There is no data available for this particular section. It is misleading and confusing.
- 2 **No information on what 'CSP File Download' and 'CRM Controls Download' stand for.**



SOLUTION GUIDELINES

The Customer List should be hidden till the details are available

The system should provide information of the available options to the users to avoid any type of errors. There could be a tooltip for explaining why the given option is required. Or it could be moved to some other sections if not required.

SEVERITY LEVEL

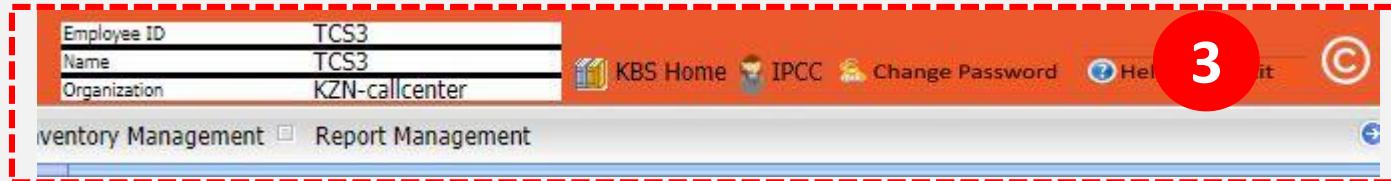
LOW

MEDIUM

HIGH

Visibility of system status

The system should always keep users informed about what is going on, through appropriate feedback within reasonable time.



ISSUES

③ **No specific area in the system for notifications.** If there are no notification then the system is not communicating or helping the user to stay up to date.

SOLUTION GUIDELINES

There should a dedicated area for Notifications, Alerts and updates for the User. The notification area can have an actionable items or any information which is relevant to the user. Notifications will keep the user updated about any latest information and will allow them to take an action on it.

SEVERITY LEVEL

LOW

MEDIUM

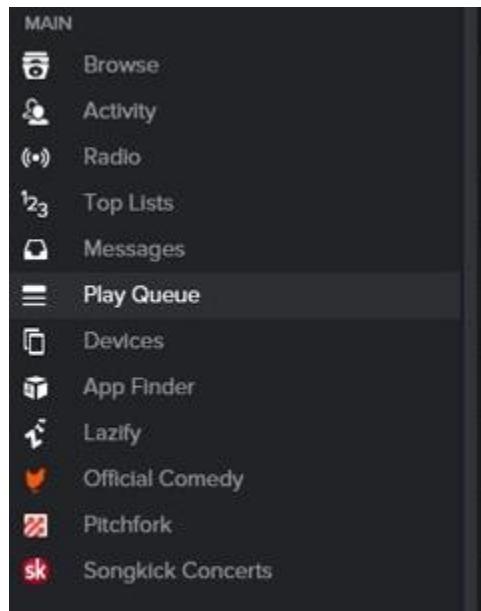
HIGH



Match between system and the real world

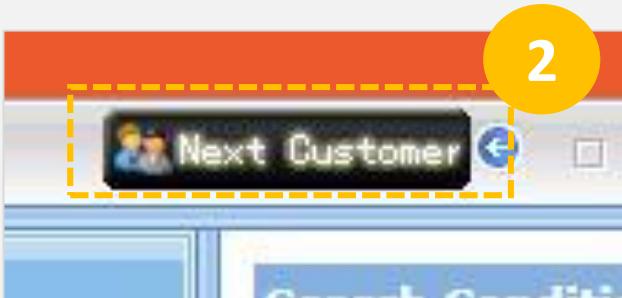
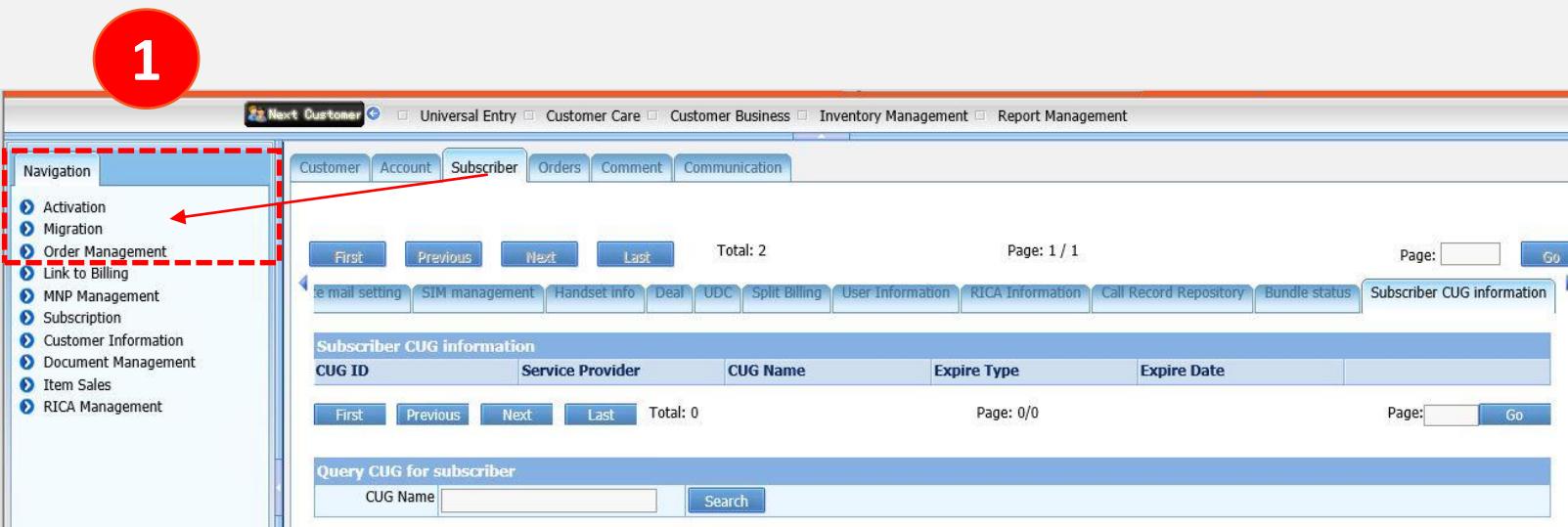
The system should speak the user's language, with words, phrases and concepts familiar to the user, rather than system oriented terms. Follow real-world conventions, making information appear in a natural and logical order.

Example: **Spotify's language**



Match between system and the real world

The system should speak the user's language, with words, phrases and concepts familiar to the user, rather than system oriented terms. Follow real-world conventions, making information appear in a natural and logical order.



ISSUES

- 1 Navigation structure is confusing.** There is no visual or functional hierarchy of the information.
- 2 Button label** doesn't convey its exact function. Upon clicking this button, it clears all the data in page.

SOLUTION GUIDELINES

The **navigation structure should be easy to understand** for a user. Grouping of relative information should be done.

An hierarchical information structure should be followed while designing the new interface, both visually and functionally.

Button label can be changed to 'clear screen' or 'clear data'.

SEVERITY LEVEL

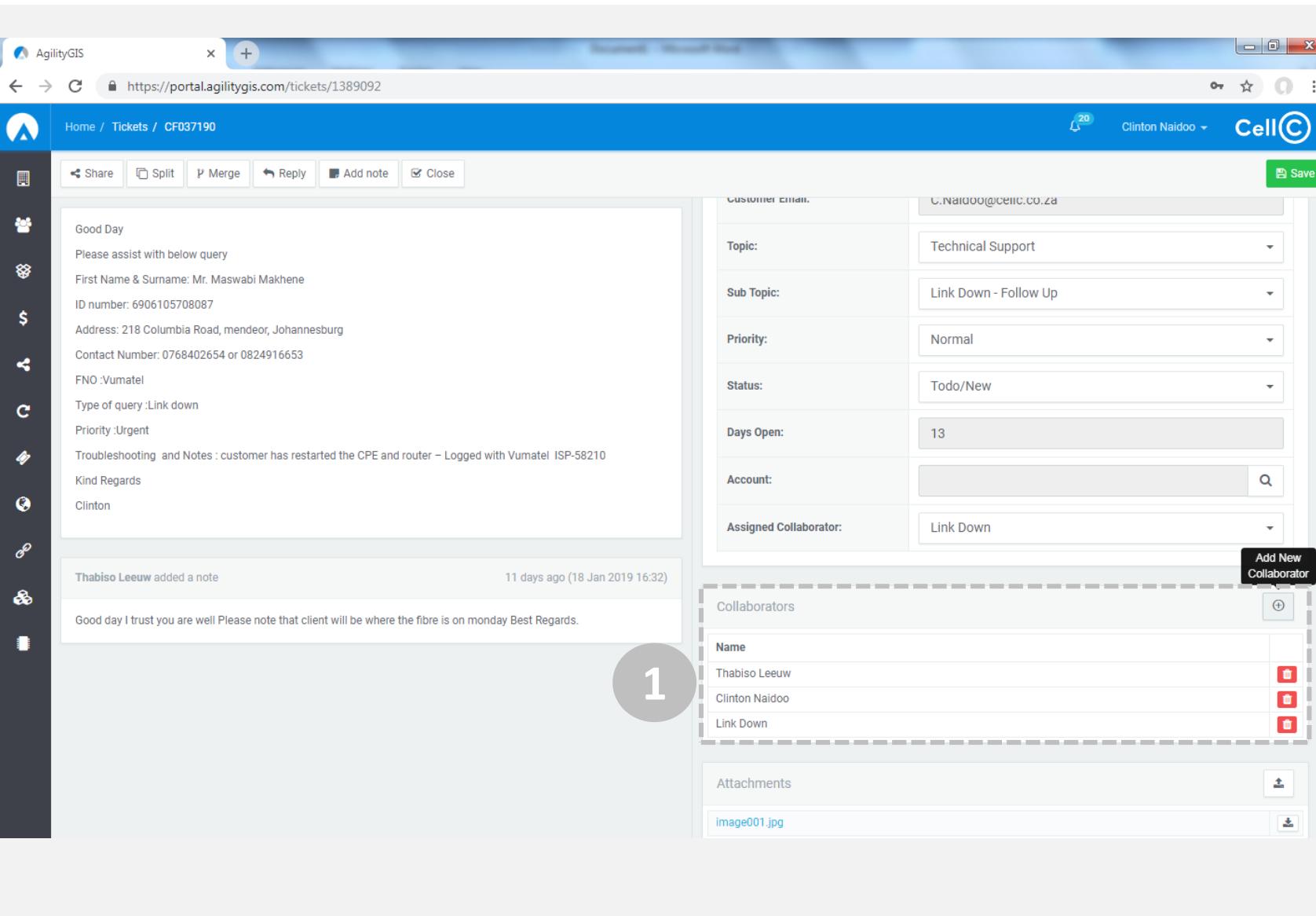
LOW

MEDIUM

HIGH

Match between system and the real world

The system should speak the user's language, with words, phrases and concepts familiar to the user, rather than system oriented terms. Follow real- world conventions, making information appear in a natural and logical order.



The screenshot shows a ticket detail page for ticket ID CF037190. The left sidebar contains various icons for sharing, splitting, merging, replying, adding notes, and closing tickets. The main content area displays the ticket details:

- Customer Email:** C.Naidoo@cellc.co.za
- Topic:** Technical Support
- Sub Topic:** Link Down - Follow Up
- Priority:** Normal
- Status:** Todo/New
- Days Open:** 13
- Account:** (Search bar)
- Assigned Collaborator:** Link Down

Below the ticket details is a section titled "Collaborators" with a list of assigned users:

- Thabiso Leeuw
- Clinton Naidoo
- Link Down

At the bottom, there is an "Attachments" section with a file named "image001.jpg".

ISSUES

1 Sequence of options

Compulsion of adding a collaborator before viewing feedback needs to be first in the sequence as the feedback column is visible only post a collaborator is added.

SOLUTION GUIDELINES

A proper sequence for the process aids a smooth flow rather than haphazard movements.

SEVERITY LEVEL

LOW

MEDIUM

HIGH



User control and freedom

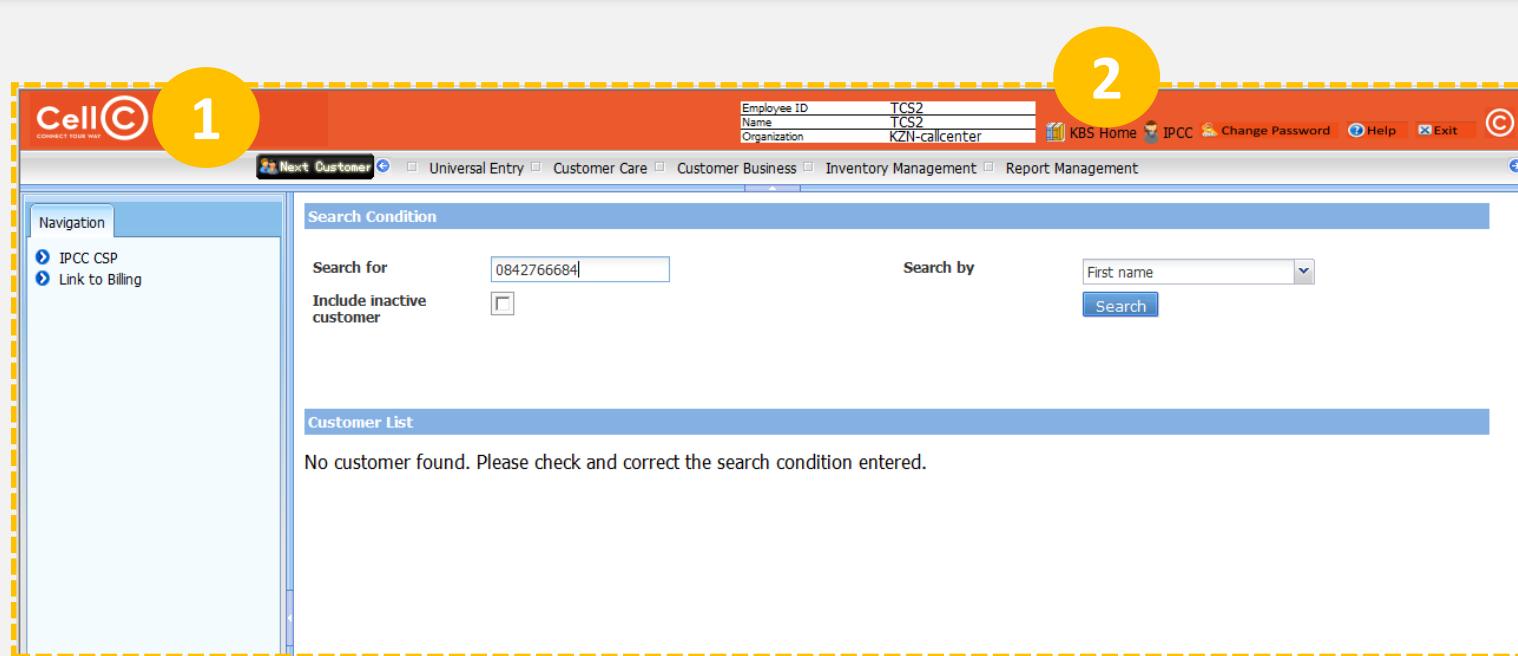
Users often choose system functions by mistake and will need a clearly marked "emergency exit" to leave the unwanted state without having to go through an extended dialogue. Support undo and redo.

Example: Gmail's undo



User control and freedom

Users often choose system functions by mistake and will need a clearly marked "emergency exit" to leave the unwanted state without having to go through an extended dialogue. Support undo and redo.



ISSUES

- 1 There is **no back button** to go to the last page/option.
- 2 There is **no evident Home Button**. Not having a homepage can have a cognitive feeling that they are browsing aimlessly without completing a task. **Breadcrumb navigation** is missing

SOLUTION GUIDELINES

The user should have the **freedom to navigate** across the pages without any restrictions.

There should be a home button which will bring the user to the Landing/Homepage. By providing them a homepage/home button we can give them the control to start/reset everything.

Introduce the breadcrumb menu

SEVERITY LEVEL

LOW

MEDIUM

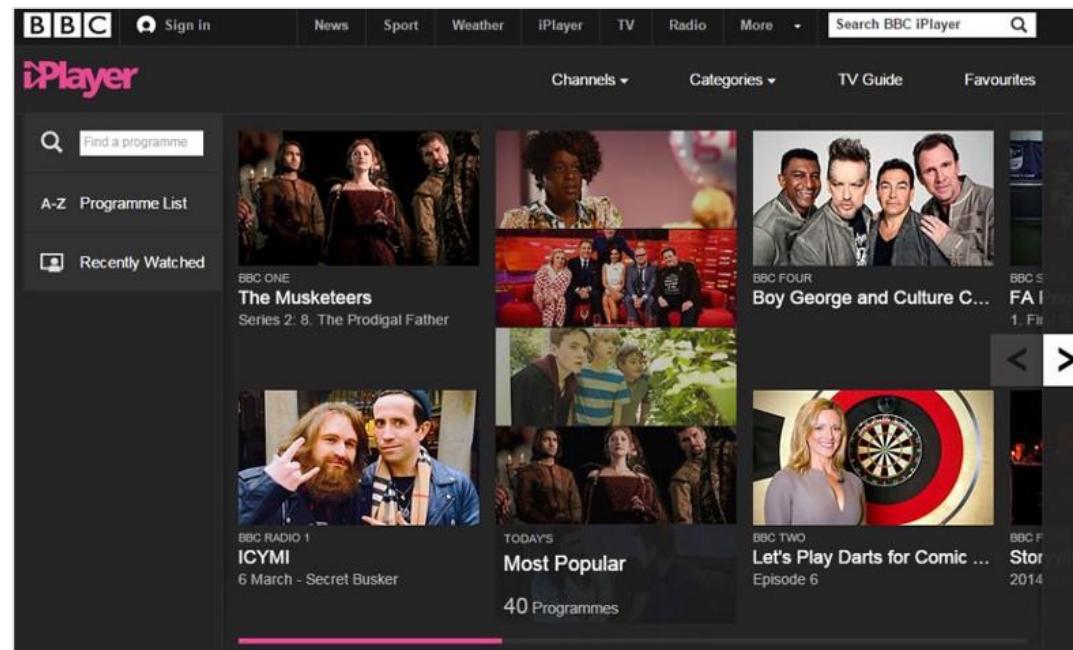
HIGH



Consistency and Standards

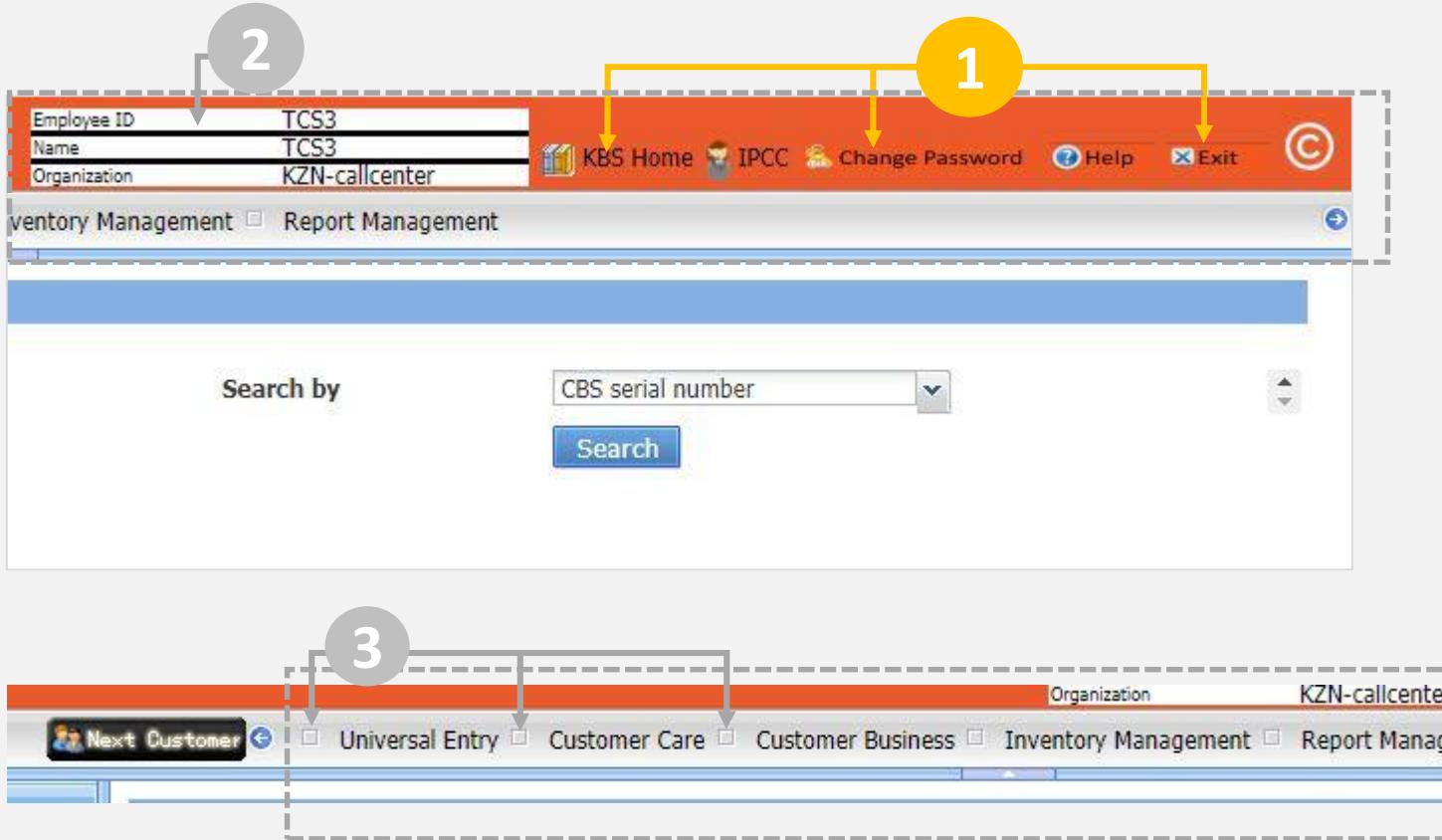
The system should always keep users informed about what is going on, through appropriate feedback within reasonable time.

Example: BBC iPlayer



Consistency and standards

The system should always keep users informed about what is going on, through appropriate feedback within reasonable time.



ISSUES

- 1 **Texts and Icons are placed very closely,** Font and Icon sizes are varying. There is no consistency and standard.
- 2 The **profile information** is looking prominent and **taking up the space for the primary navigation**.
- 3 The **boxes are used as a separator**, but to a **new user**, It might look like a disabled checkbox.

SOLUTION GUIDELINES

Texts and Icons should be **properly grouped** and there should be a **standard way to display** the primary navigation on the top bar.

The profile information doesn't need so much prominence, It can go to the right top corner as a standard practice.

Boxes can be removed and an alternate/standard way of visual design should be followed.

SEVERITY LEVEL

LOW

MEDIUM

HIGH

Consistency and standards

The system should always keep users informed about what is going on, through appropriate feedback within reasonable time.

Search Condition

Search for:

Include inactive customer

Does the customer wants to receive Marketing Communications from Cell C

E-mail Yes Yes Yes Yes Yes
Web Yes Yes Yes Yes Yes
Telephone Yes Yes Yes Yes Yes
SMS Yes Yes Yes Yes Yes
MMS Yes Yes Yes Yes Yes

Select all Yes No

First Previous Next Last 1 2

ISSUES

- 4 The check box used **does not follow the standards**. It may create confusion on its affordance.
- 5 Radio buttons are **not following the standard design**.
- 6 Visual language of **pagination is very old**.

SOLUTION GUIDELINES

Standard design for the checkbox should be followed to avoid the confusion.

As an alternative for radio button we can use the **toggle switch** or checkboxes.

The design for pagination should be updated to the **latest standards**.

SEVERITY LEVEL

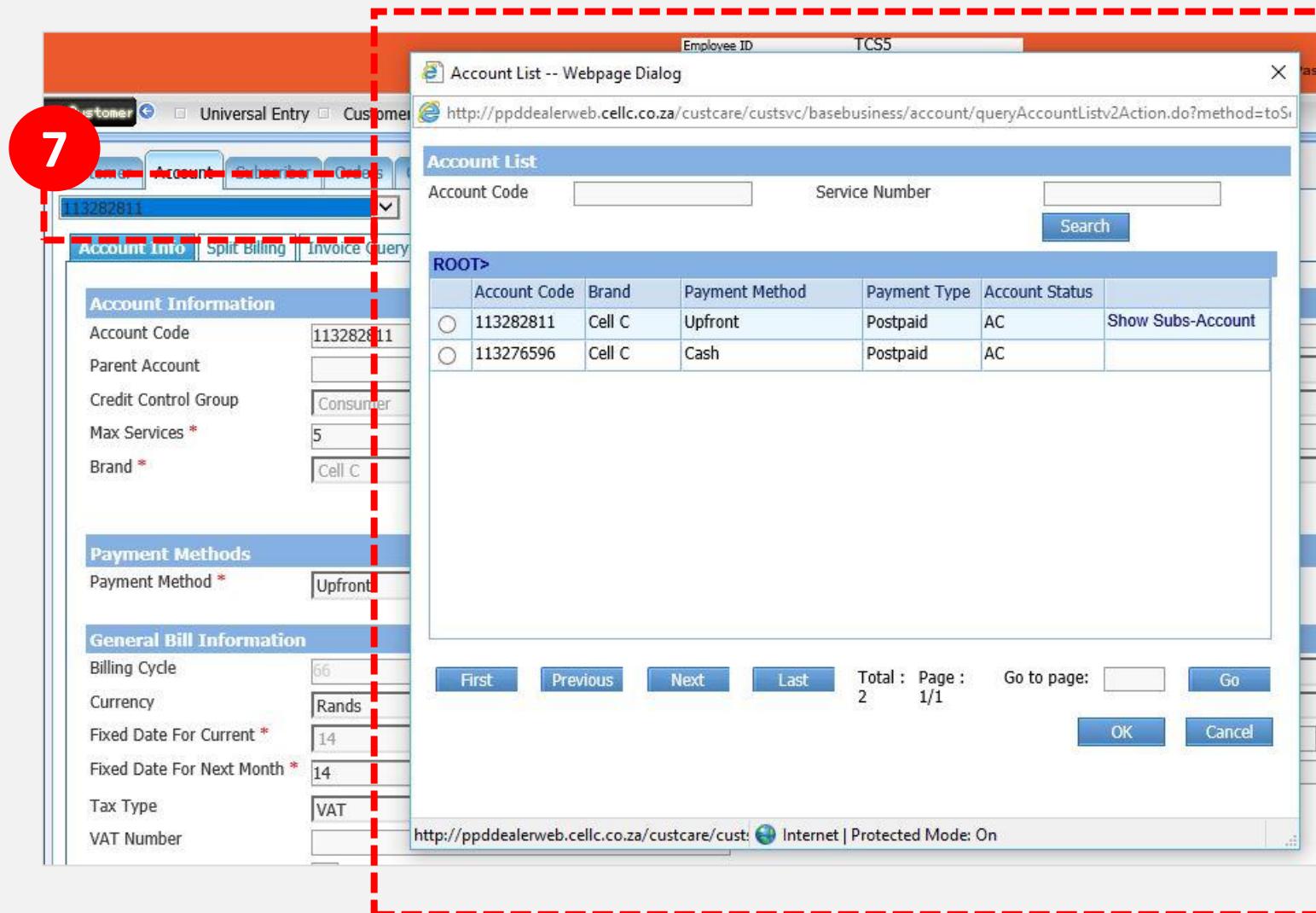
LOW

MEDIUM

HIGH

Consistency and standards

The system should always keep users informed about what is going on, through appropriate feedback within reasonable time.



A screenshot of a web application interface. On the left, there is a main form with a red border containing sections for 'Account Information', 'Payment Methods', and 'General Bill Information'. A red circle with the number '7' is placed over the 'Brand' field in the 'Account Information' section. On the right, a separate window titled 'Account List -- Webpage Dialog' is displayed, also with a red border. This window shows a table of account data with two rows. The first row has an account code of '113282811', a brand of 'Cell C', a payment method of 'Upfront', a payment type of 'Postpaid', and an account status of 'AC'. The second row has an account code of '113276596', a brand of 'Cell C', a payment method of 'Cash', a payment type of 'Postpaid', and an account status of 'AC'. The table has a header row with columns for Account Code, Brand, Payment Method, Payment Type, Account Status, and Show Subs-Account. At the bottom of the window, there are buttons for 'First', 'Previous', 'Next', 'Last', 'Total : 2', 'Page : 1/1', 'Go to page: [input]', 'Go', 'OK', and 'Cancel'.

ISSUES

7 Upon clicking the **dropdown menu**, it **opens up a pop up**, which is an unusual behavior. It is inconsistent and incorrect. The user has an understanding for the **affordance** of a dropdown menu that it will give them multiple options below to choose from, rather than giving a popup. It creates confusion when for a same action there are multiple reactions.

SOLUTION GUIDELINES

The behavior of a component should be consistent across the system. Dropdown menu should give them a dropdown list rather than a popup window.

Keep the components behavior consistent across the system.

SEVERITY LEVEL

LOW

MEDIUM

HIGH

Consistency and standards

The system should always keep users informed about what is going on, through appropriate feedback within reasonable time.

ISSUES

- 8 In the same application there are **two different types** of calendar.
- 9 The behavior of the 'Edit' button is **wrong** as it disappears
- 10 Alignment of Interface Elements
- 11 Similar icons for multiple action buttons
The text is hidden. The user has to hover on the icon to read the text

SOLUTION GUIDELINES

The design for calendar or any other components should be made consistent across the system.

The behavior of a component should be consistent across the system so that the user doesn't get confused.

System should follow uniform iconography. Icons may or may not necessary for each and every action button.

SEVERITY LEVEL

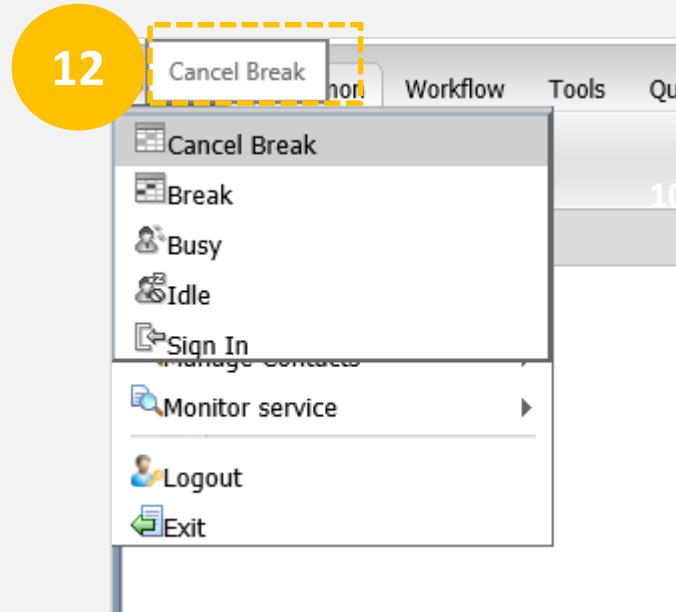
LOW

MEDIUM

HIGH

Consistency and standards

The system should always keep users informed about what is going on, through appropriate feedback within reasonable time.



A screenshot of a software interface showing a table with columns 'Service Number', 'Product Type', and 'Product'. The table contains two rows of data. The 'Product' column header is highlighted with a yellow dashed box. The number 13 is enclosed in a yellow circle in the top-right corner of the 'Product' column header.

| Service Number | Product Type | Product |
|----------------|--------------|---------------------------|
| 0521903106 | Postpaid | Pinnacle Postpaid 2018 |
| 0622211913 | Hybrid | Upfront Pinnacle TopUp 20 |

ISSUES

12 **The sub menu opens at the top of main menu**, which is not a standard practice. The user should be able to see the main menu and the sub menu at the same time so that they have the visibility of all the available option.

13 **No Call To Action (CTA) Button.** The user has to always press the 'Enter' key (keyboard) for performing the final action.

SOLUTION GUIDELINES

Sub menu should follow the standard design of opening at the right side of the main menu

Provide the user a Call to Action (CTA) button for every query. Information **should not be repeating** as it takes up space and by appearing multiple times, it may confuse the users.

SEVERITY LEVEL

LOW

MEDIUM

HIGH

Consistency and standards

The system should always keep users informed about what is going on, through appropriate feedback within reasonable time.

| 120 days | R.00 | 90 days | R.00 | 60 days | R.00 | 30 days | R.00 | Current | R.00 | Total | R.00 |
|-------------------------------------|------|-------------------------------------|------|-------------------------------------|------|-------------------------------------|------|-------------------------------------|------|---|--------------------------------------|
| <input type="button" value="View"/> | | <input type="button" value="Settle Account"/> | <input type="button" value="Print"/> |

| Account Code | Brand | Payment Type |
|--|--------|--------------|
| <input checked="" type="radio"/> 113282812 | Cell C | Hybrid |
| <input type="radio"/> 113282811 | Cell C | Postpaid |
| <input type="radio"/> 113276596 | Cell C | Postpaid |

ISSUES

14 The 'Selection radio button' and the 'Query button' are placed on the opposite ends of the screen, making the user navigate the mouse pointer from left to right adding unnecessary cognitive load and confusion.

Fitts' Law dictates that shorter mouse movements are better: it is always faster to click a target if it is closer to your starting position

Gestalt's Principle: Humans naturally perceive objects as organized patterns and objects.

SOLUTION GUIDELINES

To perform an action over a selection, both components should be in proximity, so that the visual link gives a cue to the user to perform an action over the selection. Place the button near selection so that the user can visually identify a link between it.

SEVERITY LEVEL

LOW

MEDIUM

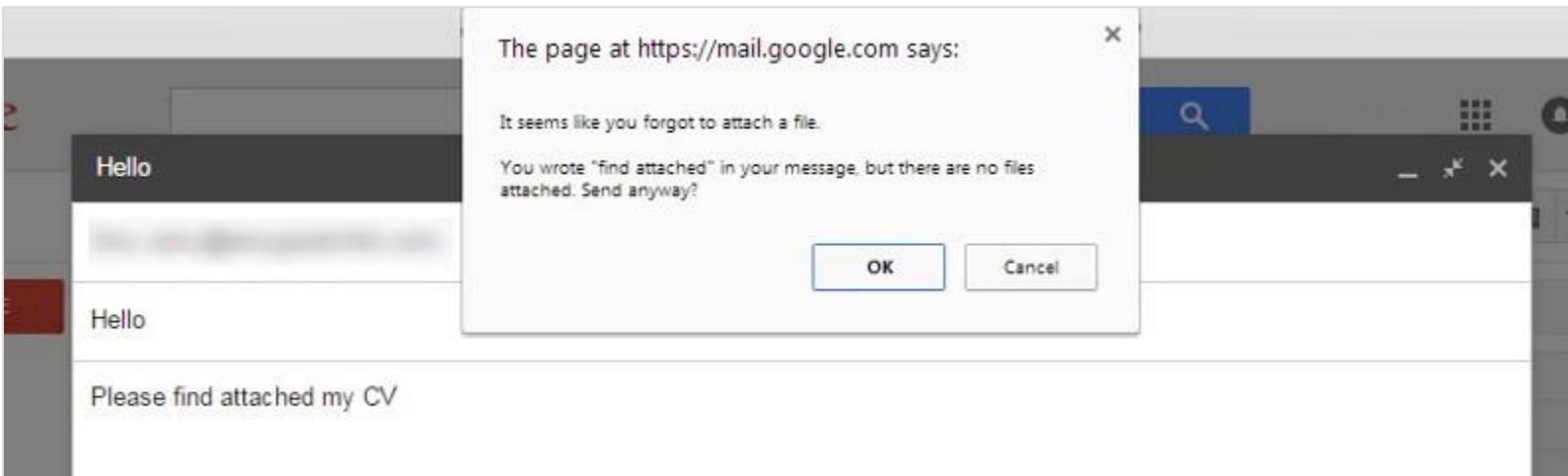
HIGH



Error prevention

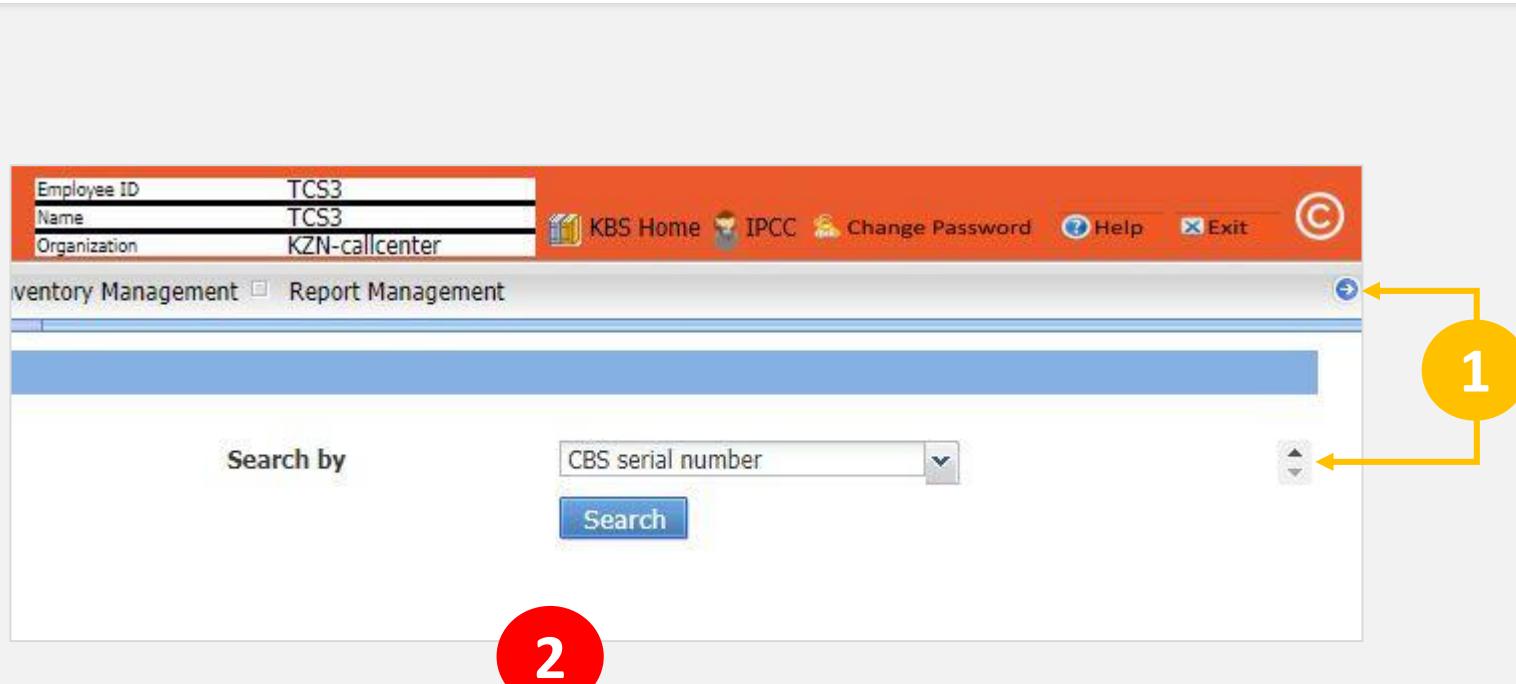
Even better than good error messages is a careful design which prevents a problem from occurring in the first place.

Example: Gmail's attachment reminder



Error prevention

Even better than good error messages is a careful design which prevents a problem from occurring in the first place.



ISSUES

- 1 The arrows does nothing, it's capturing the user's attention for no reason.
- 2 The dropdown does not have any data and when clicked upon, shows nothing but highlights the texts.

SOLUTION GUIDELINES

If a component doesn't have any function, it should be removed as it is hindering the breathing space and taking up an important space for no reason.

If there is no data, the dropdown option should be disabled (with the only data available) or removed (if no data available), as it prompts the user to click on it only to show them no data.

SEVERITY LEVEL

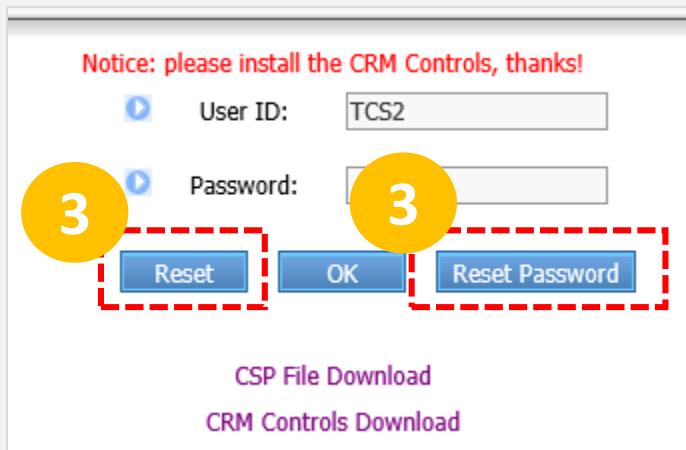
LOW

MEDIUM

HIGH

Error prevention

Even better than good error messages is a careful design which prevents a problem from occurring in the first place.



ISSUES

3 The Button label 'Reset' and 'Reset password' looks similar. But the **functions are different for both the buttons.**

SOLUTION GUIDELINES

The label of the buttons should be used properly. The terminology should be precise and not confusing to the users

SEVERITY LEVEL

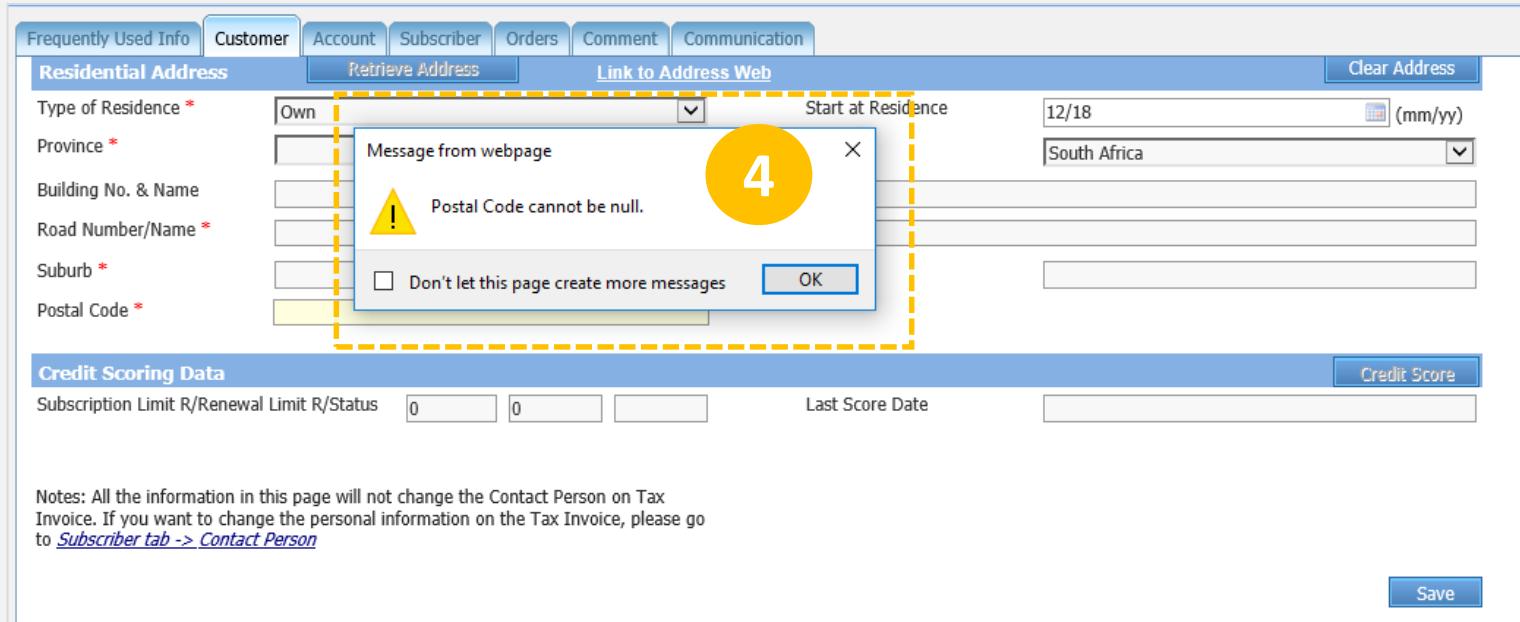
LOW

MEDIUM

HIGH

Error prevention

Even better than good error messages is a careful design which prevents a problem from occurring in the first place.



The screenshot shows a web-based application interface for managing customer information. At the top, there is a navigation bar with tabs: Frequently Used Info, Customer, Account, Subscriber, Orders, Comment, and Communication. The 'Customer' tab is currently selected. Below the navigation bar, there is a section for 'Residential Address' with fields for Type of Residence (Own), Province, Building No. & Name, Road Number/Name, Suburb, and Postal Code. The 'Postal Code' field is highlighted with a yellow border, indicating it is a required field. A modal dialog box is displayed, containing the message 'Postal Code cannot be null.' with a yellow exclamation mark icon. The number '4' is overlaid on the top-left corner of the dialog box. In the background, there are other form fields: 'Start at Residence' (12/18, mm/yy), 'South Africa' (a dropdown menu), and 'Credit Scoring Data' (Subscription Limit R/Renewal Limit R/Status, Last Score Date, Credit Score, Save button). A note at the bottom states: 'Notes: All the information in this page will not change the Contact Person on Tax Invoice. If you want to change the personal information on the Tax Invoice, please go to [Subscriber tab -> Contact Person](#)'.

ISSUES

4 When the required fields are not filled
The error popup shows the error message only for one particular field rather than showing how many fields are required to be filled

SOLUTION GUIDELINES

Proper error message should be shown and the errors should be pin pointed rather than giving a generic error message. E.g. the fields which are mandatory to fill can be highlighted.

SEVERITY LEVEL

LOW

MEDIUM

HIGH



Recognition rather than recall

Make objects, actions, and options visible. The user should not have to remember information from one part of the dialogue to another. Instructions for use of the system should be visible or easily retrievable whenever appropriate.

Example: Foursquare's suggestion

FOURSQUARE

I'm looking for...

London, GB

London, GB

Add Tastes

You have 24 tastes. Add tastes to personalize your search results.

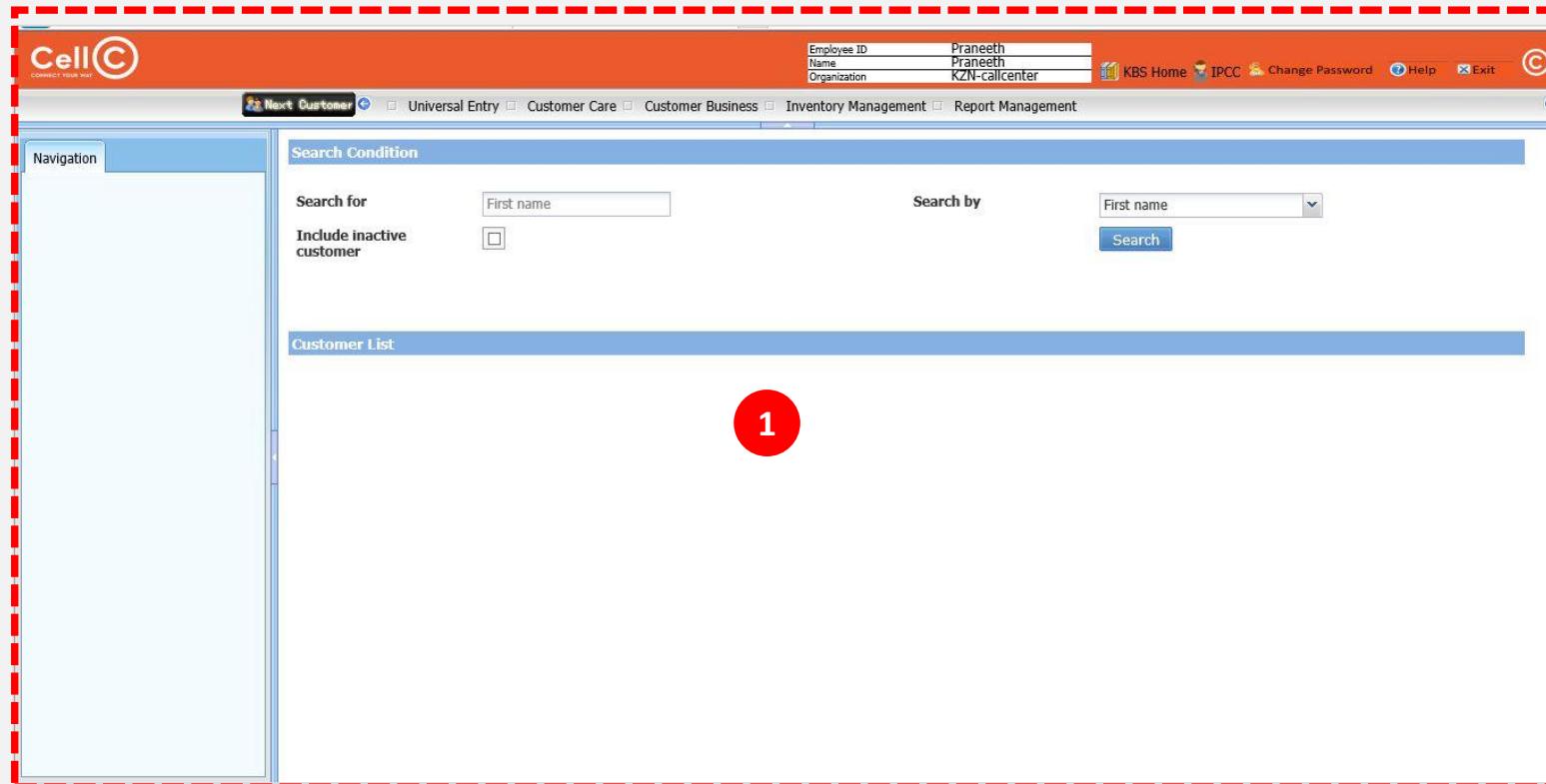
Fried chicken + Grilled cheese sandwiches + Vodka + Authentic places + Omelettes + Egg drop soup +
Beer gardens + Museums + Croissants + Truffles + Cocktails + Cheesesteaks + Tacos +
Family-friendly places + Ice cream + Ethiopian food + Fish & chips + Shrimp + Jalapeños +
Turkey bacon + Waffles + Espresso + Waffle cones + Lunch + Happy hour + Rock clubs +
Salami + Feta cheese + Fancy places + Outdoor seating + Yogurt + Breweries + Sushi +

Show more ↗

Done

Recognition rather than recall

The system should always keep users informed about what is going on, through appropriate feedback within reasonable time.



ISSUES

1 **No information on landing page**
Landing page of Beam system does not give any indication or provide information about what to do on the screen apart from a search bar. Is it the only thing the user wants to do when landing on the home screen? Searching for a customer?

SOLUTION GUIDELINES

We should be utilizing the blank space in the landing page to put on some more information like a **performance indicator** or **worklist** for that particular agent.

A dashboard for the agent - The user may want to see their daily status like – pending items, worklist, action items and performance

SEVERITY LEVEL

LOW

MEDIUM

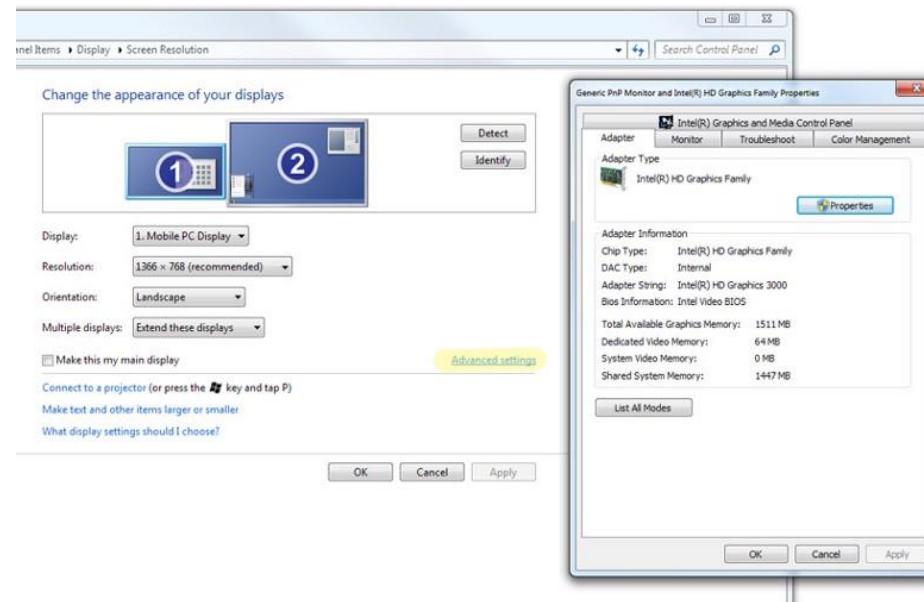
HIGH



Flexible and efficiency of use

Design suitable for both inexperienced and experienced users.

Example: Window's advanced settings



Flexibility and efficiency of use

Design suitable for both inexperienced and experienced users.

The screenshot shows a search interface with the following elements:

- Search Condition** section with a **Search for** input field (circled with a red number 1).
- Search by** section with a dropdown menu (circled with a red number 1) containing the following options:
 - Service number/Customer code
 - Bank account number
 - Last name
 - Company name
 - ID card number
 - CBS serial number
 - Application ID
 - Sim card number
 - First name
 - Account code
 - Company Id
 - Customer name
- Customer List** section.

ISSUES

① **Search criteria is not efficient.** In the existing system the user has to select a search category from a dropdown menu first and then search the relevant information in some other search box. This increases an extra step/click for the user. User has to recall what they are searching for rather than simply typing in and system doing the calculation for them. It increases the cognitive load for the user.

SOLUTION GUIDELINES

Redesigning the search engine. The system should be strong and smart enough to categorize any information provided by the user and give them the final result rather than the user categorizing at first level. Provide a global search bar where the user can type in any query and the system gives them the final result.

SEVERITY LEVEL

LOW

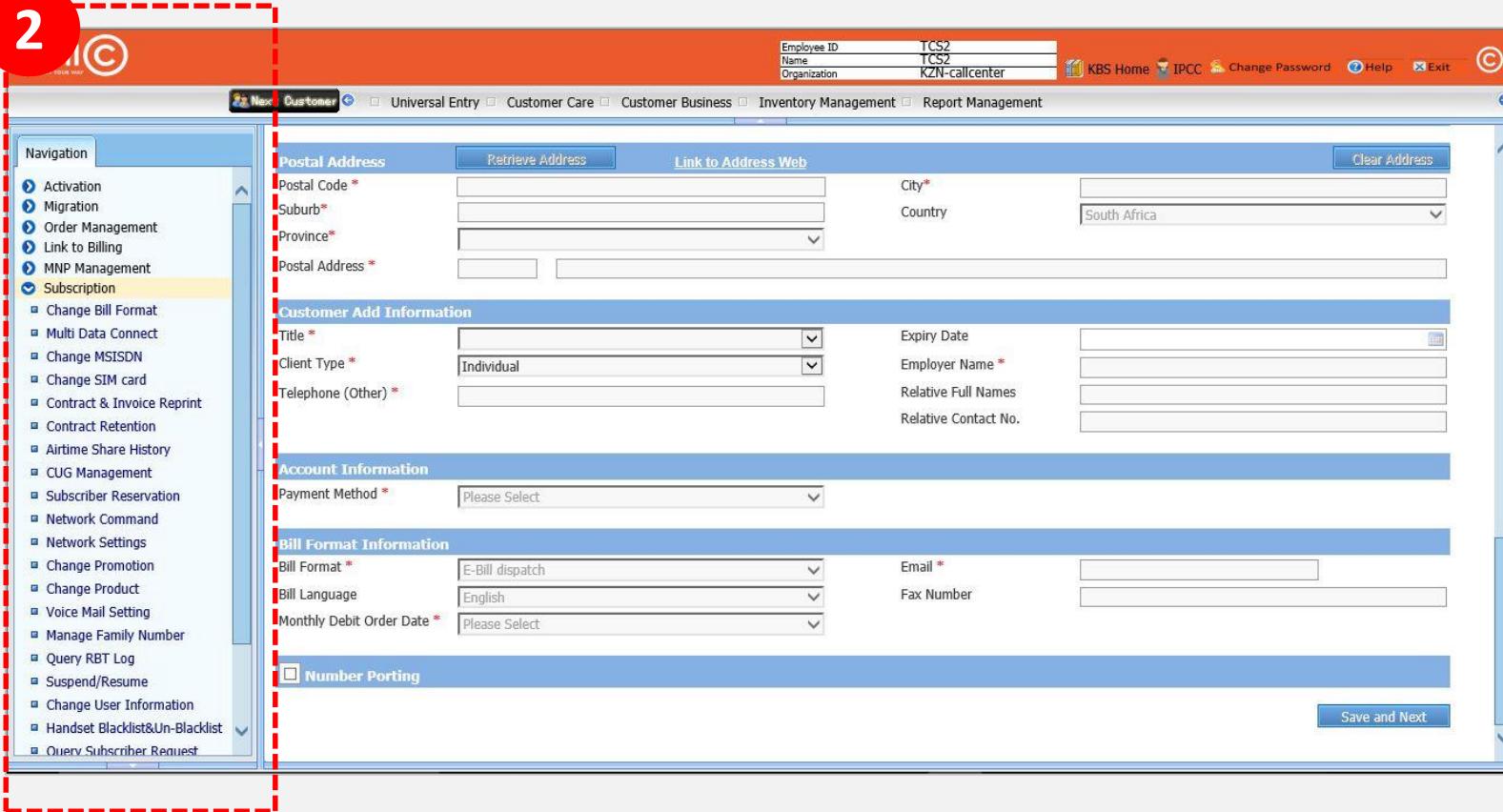
MEDIUM

HIGH

Flexibility and efficiency of use

Design suitable for both inexperienced and experienced users.

2



The screenshot shows a software application window. At the top, there is a header bar with the text 'Employee ID: TCS2', 'Name: TCS2', 'Organization: KZN-callcenter', and various menu options like 'KBS Home', 'IPCC', 'Change Password', 'Help', and 'Exit'. On the left side, there is a vertical navigation panel with a red dashed border around it. The navigation panel contains a list of items under 'Activation', 'Migration', 'Order Management', 'Link to Billing', 'MNP Management', and 'Subscription'. The 'Subscription' item is currently selected, indicated by a yellow background. The main content area of the window is divided into several sections: 'Postal Address' (with fields for Postal Code, Suburb, Province, and Postal Address), 'Customer Add Information' (with fields for Title, Client Type, Expiry Date, Employer Name, Telephone, Relative Full Names, and Relative Contact No.), 'Account Information' (with a dropdown for Payment Method), 'Bill Format Information' (with dropdowns for Bill Format, Bill Language, and Monthly Debit Order Date), and 'Number Porting' (with a checkbox). A 'Save and Next' button is located at the bottom right of the main form.

ISSUES

2 Navigation section is not structured.

There is too much textual information on the navigation which can make a new user confused. Information overload to an inexperienced user will make them unable to navigate through the system. Leading to fail in performing a task.

SOLUTION GUIDELINES

The System should categorize the data based on different user's need. The information on the navigation panel can be further categorize into smaller groups to avoid confusion and information overload. Iconography can be introduced to show less and relevant data.

SEVERITY LEVEL

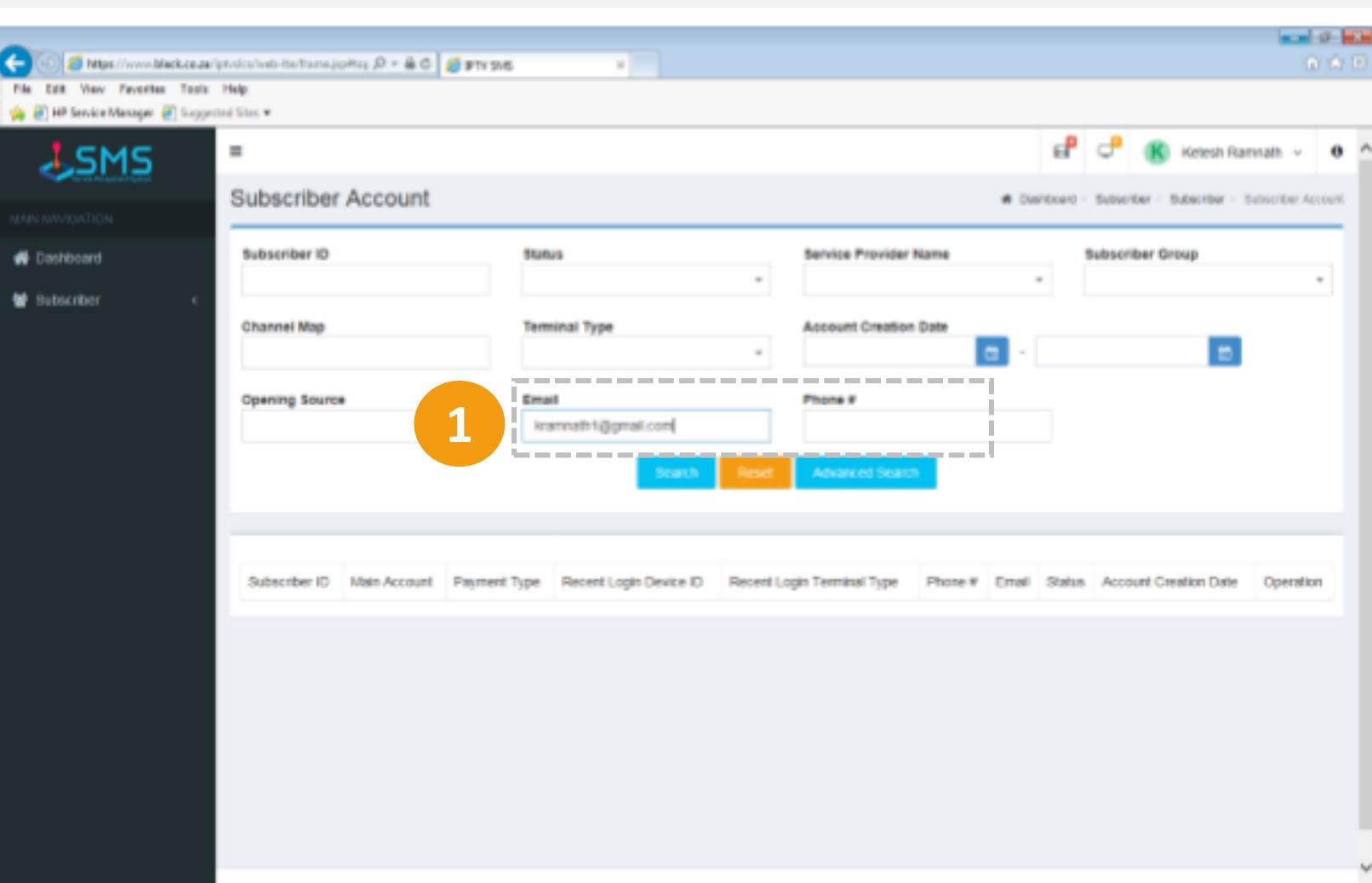
LOW

MEDIUM

HIGH

Flexibility and efficiency of use

Design suitable for both inexperienced and experienced users.



The screenshot shows a web-based application for managing subscriber accounts. The main title is 'Subscriber Account'. The search bar at the top contains fields for 'Subscriber ID', 'Status', 'Service Provider Name', 'Subscriber Group', 'Channel Map', 'Terminal Type', 'Account Creation Date', and 'Opening Source'. The 'Opening Source' field is highlighted with a dashed box and contains an 'Email' label and an input field with the value 'krannath1@gmail.com'. Below the search bar are buttons for 'Search', 'Reset', and 'Advanced Search'. At the bottom of the search bar, there is a list of filter options: 'Subscriber ID', 'Main Account', 'Payment Type', 'Recent Login Device ID', 'Recent Login Terminal Type', 'Phone #', 'Email', 'Status', 'Account Creation Date', and 'Operation'. The entire interface is set against a light blue background with a dark sidebar on the left.

ISSUES

- 1 **Search Criteria should be independent of label options:** The search criteria should be smart enough to distinguish between a email search and a number search

SOLUTION GUIDELINES

One search bar for searching the customer irrespective of the related information available which in this case is email or phone number

SEVERITY LEVEL

LOW

MEDIUM

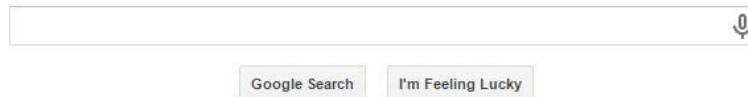
HIGH



Aesthetic and minimalistic design

Dialogues should not contain information which is irrelevant or rarely needed. Every extra unit of information in a dialogue competes with the relevant units of information and diminishes their relative visibility.

Example: **Google's search page**



What advice would you give your younger self? #DearMe

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1

The screenshot shows a software interface for managing customer information. The left sidebar contains a navigation menu with many items, some of which are highlighted in yellow. The main area is titled 'Customer Information' and contains two sections: 'Customer Information' and 'Work/Bank Details'. The 'Customer Information' section includes fields for Customer Code, Status, Gender, Title, Client Type, First Name, Middle Name, Last Name, and various telephone numbers. The 'Work/Bank Details' section includes fields for Employment Status, Position, Job Description, and Monthly Salary. A red dashed box highlights the sidebar, and a red circle with the number 2 highlights the telephone field section.

ISSUES

1 Information overload:

There is too much of information visible in one single screen. The form optimization is not done

2 The telephone field is repeating 7 times

times, out of which only 3 are mandatory field. Other non mandatory fields are eating up space which could be used for placing some other important information.

SOLUTION GUIDELINES

Form Optimization: The information/text fields provided should optimized to make it minimalist and improve the aesthetics. The non-mandatory fields can be removed.

SEVERITY LEVEL

LOW

MEDIUM

HIGH

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ISSUES

- 3 The gradient on the box, text color and smaller font size makes it **difficult to read the text**.
- 4 It's **difficult to make out if the buttons are enabled or disabled**. A color blind person may have difficulty to read the same.
- 5 There are **too many horizontal and vertical scrollbars** in some of the screens. This creates difficulty in navigating through the system.

SOLUTION GUIDELINES

The tabs should be made readable by increasing the font size, using single hue that complements the text on it.

For identifying the enabled or disabled buttons, there should be some visual cue or feedback on hover. Also, different types of buttons should have different visual identity, e.g. color/text-opacity etc.

The scrollbars should be reduced and alternatives like accordion menu or the grouping of data should be done to keep the scroll minimal.

SEVERITY LEVEL

LOW

MEDIUM

HIGH

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This screenshot shows a software interface with a navigation bar on the left and a main content area. The navigation bar includes tabs for Customer, Account, Subscriber, Orders, Comment, and Communication. A red circle with the number 6 is positioned in the top-left corner of the interface. The main content area displays a 'Subscriber CUG information' table with columns for CUG ID, Service Provider, CUG Name, Expire Type, and Expire Date. Below this is a 'Query CUG for subscriber' search bar. The top of the interface has a toolbar with buttons for First, Previous, Next, Last, and a page navigation section. A red dashed box highlights the top navigation bar and the toolbar area.

This screenshot shows a software interface with a navigation bar on the left and a main content area. The navigation bar includes tabs for Customer, Account, Subscriber, Orders, Comment, and Communication. A red circle with the number 7 is positioned in the top-left corner of the interface. The main content area displays a 'Customer Information' form with various fields like Customer Code, Gender, Title, Client Type, First Name, Middle Name, Last Name, and several telephone numbers. A red dashed box highlights the left navigation sidebar and the main content area.

ISSUES

6 **Tab structure looks very cluttered** and messy. The next arrow button does not allow to click instead the tab starts moving on hover above the arrow icon

7 Information on the left side navigation and the top bar tabs are showing redundant data.

SOLUTION GUIDELINES

Grouping of the information should be done properly. The information visualization should be aesthetically pleasing and relevant to the user.

Agents should have a role based login to cut down the excess and irrelevant information. Also, to enhance the user experience use icons wherever possible.

SEVERITY LEVEL

LOW

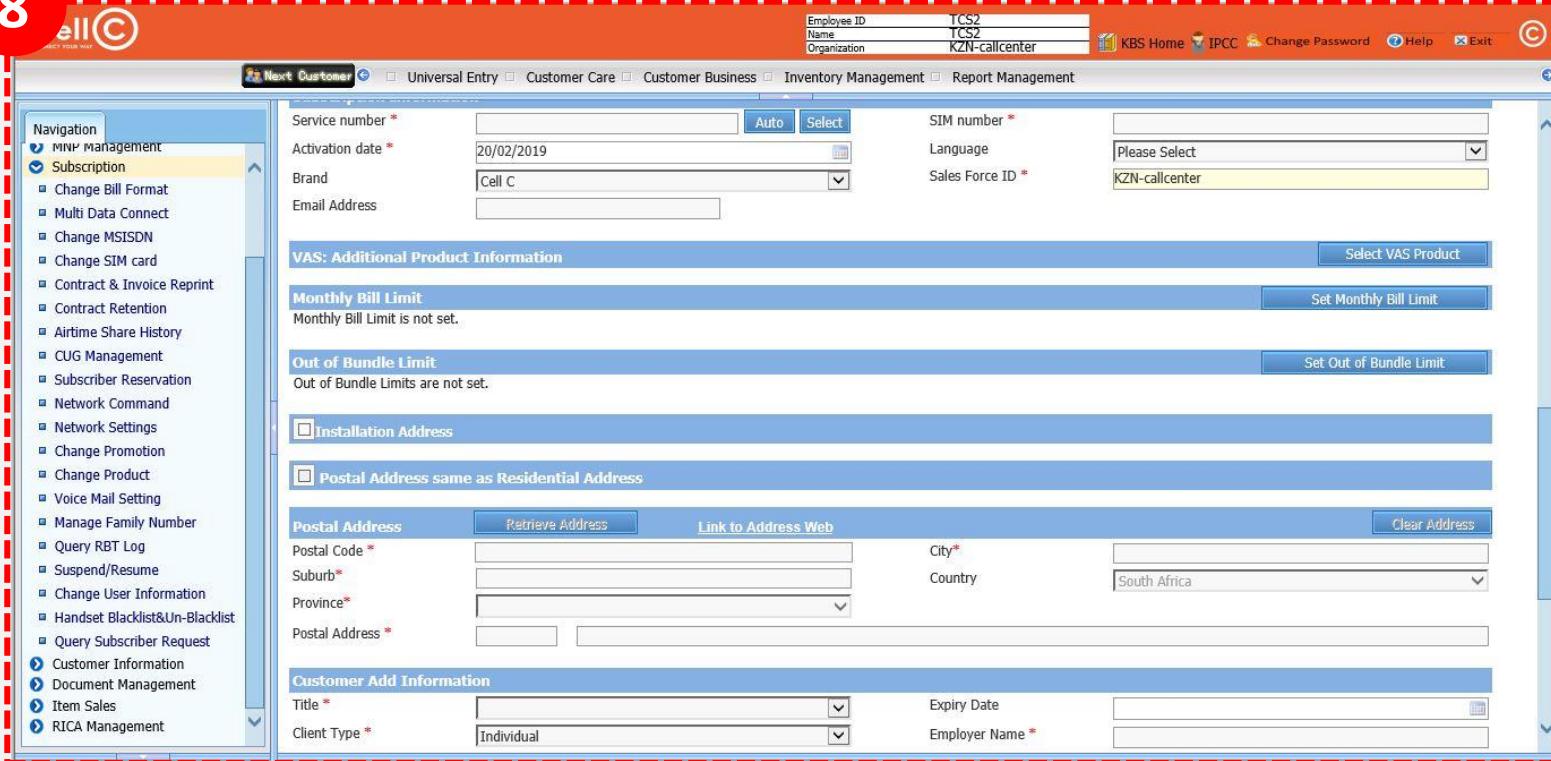
MEDIUM

HIGH

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8



The screenshot shows a software interface for managing customer information. The top navigation bar includes 'Employee ID: TCS2', 'Name: TCS2', 'Organization: KZN-callcenter', 'KBS Home', 'IPCC', 'Change Password', 'Help', and 'Exit'. The main window has a red dashed border around the entire content area. On the left, a vertical navigation menu lists various management options. The main form contains several sections: 'Service number *' (with 'Auto' and 'Select' buttons), 'SIM number *' (with dropdowns for 'Language' and 'Sales Force ID'), 'VAS: Additional Product Information' (with a 'Select VAS Product' button), 'Monthly Bill Limit' (with a note 'Monthly Bill Limit is not set.' and a 'Set Monthly Bill Limit' button), 'Out of Bundle Limit' (with a note 'Out of Bundle Limits are not set.' and a 'Set Out of Bundle Limit' button), 'Installation Address' (with a checkbox), 'Postal Address same as Residential Address' (with a checkbox), 'Postal Address' (with fields for 'Postal Code', 'Suburb', 'Province', and 'Postal Address'), 'Link to Address Web' (with 'Retrieve Address' and 'Clear Address' buttons), 'City*' (with dropdown), 'Country' (with dropdown set to 'South Africa'), 'Customer Add Information' (with fields for 'Title', 'Client Type' set to 'Individual', 'Expiry Date', and 'Employer Name'), and 'Link to Address Web' (with 'Retrieve Address' and 'Clear Address' buttons). The entire form area is enclosed in a red dashed border.

ISSUES

8 There is **very less breathing space** in the Interface. Unnecessary information takes up too much space. Some features which nobody uses should be discarded.

SOLUTION GUIDELINES

Content that do not support the page should be removed. Only relevant information should be displayed. Screen should have a breathing space and the information should categorized and clustered accordingly.

SEVERITY LEVEL

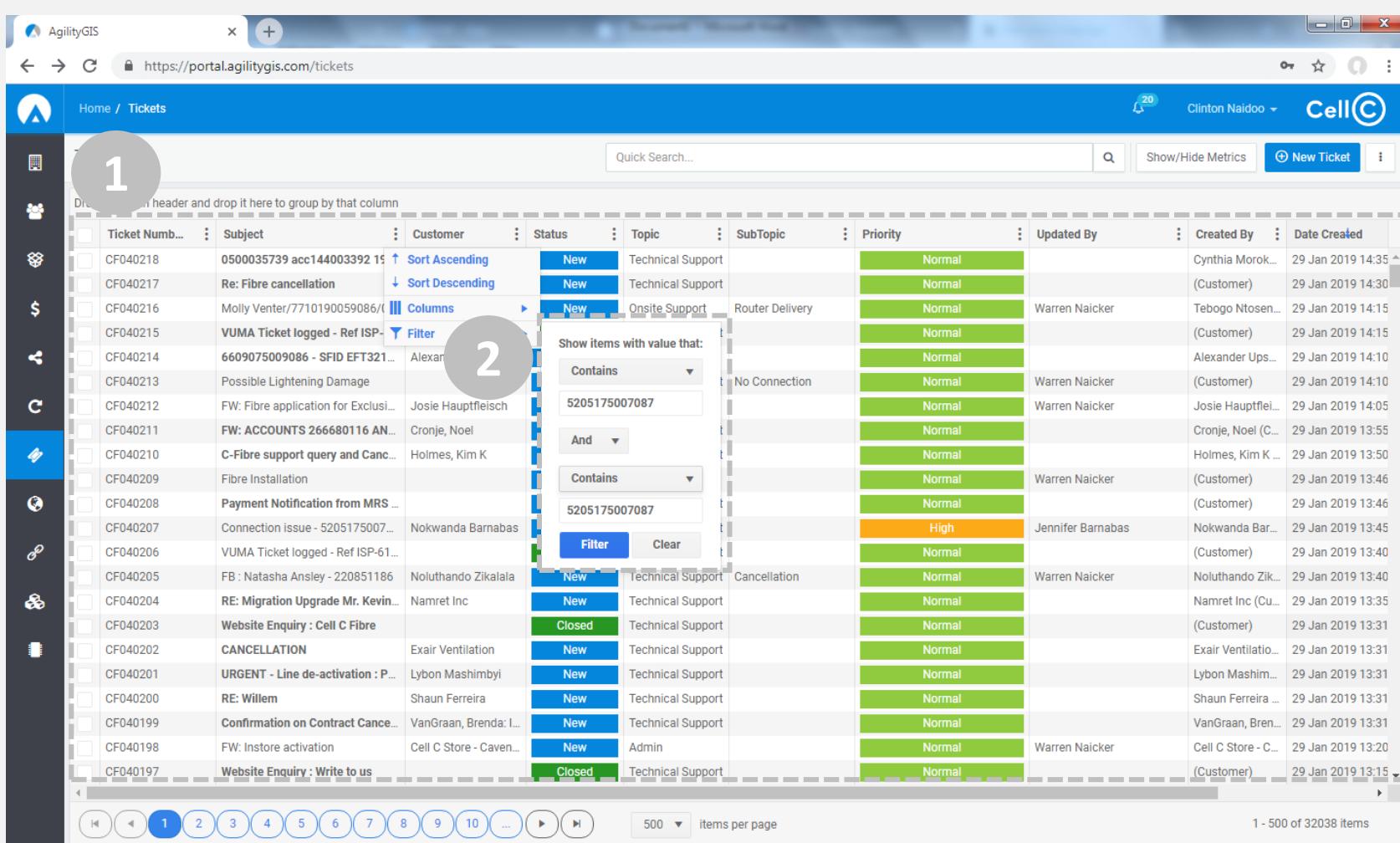
LOW

MEDIUM

HIGH

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The screenshot shows a ticket management system interface. A search filter overlay is displayed over the ticket list, obscuring some of the data. The filter interface includes a 'Quick Search...' input field, a search icon, and a 'Show/Hide Metrics' button. A 'New Ticket' button is also visible. The ticket list table has columns for Ticket Number, Subject, Customer, Status, Topic, SubTopic, Priority, Updated By, Created By, and Date Created. The 'Topic' column is currently expanded to show 'New', 'Technical Support', 'Router Delivery', and 'Onsite Support'. The 'Priority' column is color-coded in green for 'Normal' and orange for 'High'. The 'Created By' column shows names like Cynthia Morok, Warren Naicker, and Alexander Up... The 'Date Created' column shows dates like 29 Jan 2019 14:35. The bottom of the screen shows a navigation bar with page numbers (1-10) and a dropdown for 'items per page' (500), and a status bar indicating '1 - 500 of 32038 items'.

ISSUES

- 1 **Cluttered view for showcasing tickets.** A simplified view showing an overview of the tickets and the reason codes associated.
- 2 **Filter for search needs to be upfront instead of the spinner menu** The filter should have simplified terminology

SOLUTION GUIDELINES

A dashboard view for the agents to see the queries clubbed as per priority and reason

Filter Menu should be beside the search option for quicker access. Simplified terminology for filter menu is required

SEVERITY LEVEL

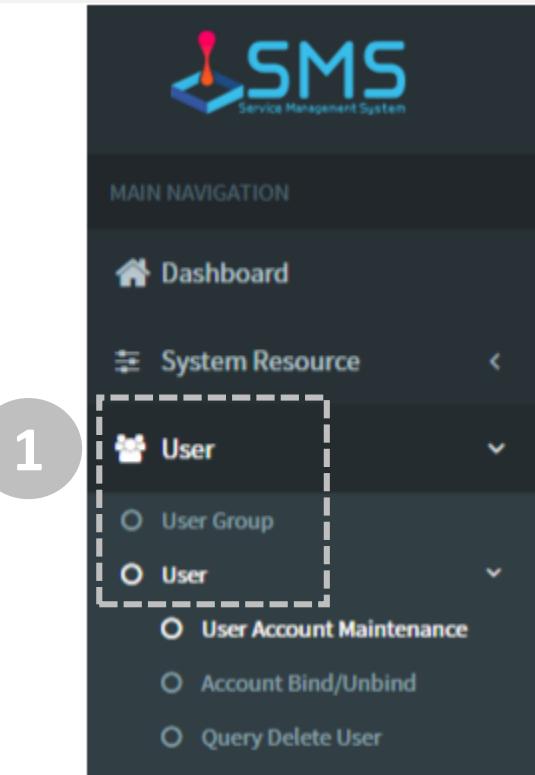
LOW

MEDIUM

HIGH

Aesthetic and minimalist design

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ISSUES

- 1 **Repetition of Label Naming.** Keeping the label name for the Left Menu and Sub Menu creates confusion among the user

SOLUTION GUIDELINES

A separate naming convention for labels and sub label helps a user differentiate easily

SEVERITY LEVEL

LOW

MEDIUM

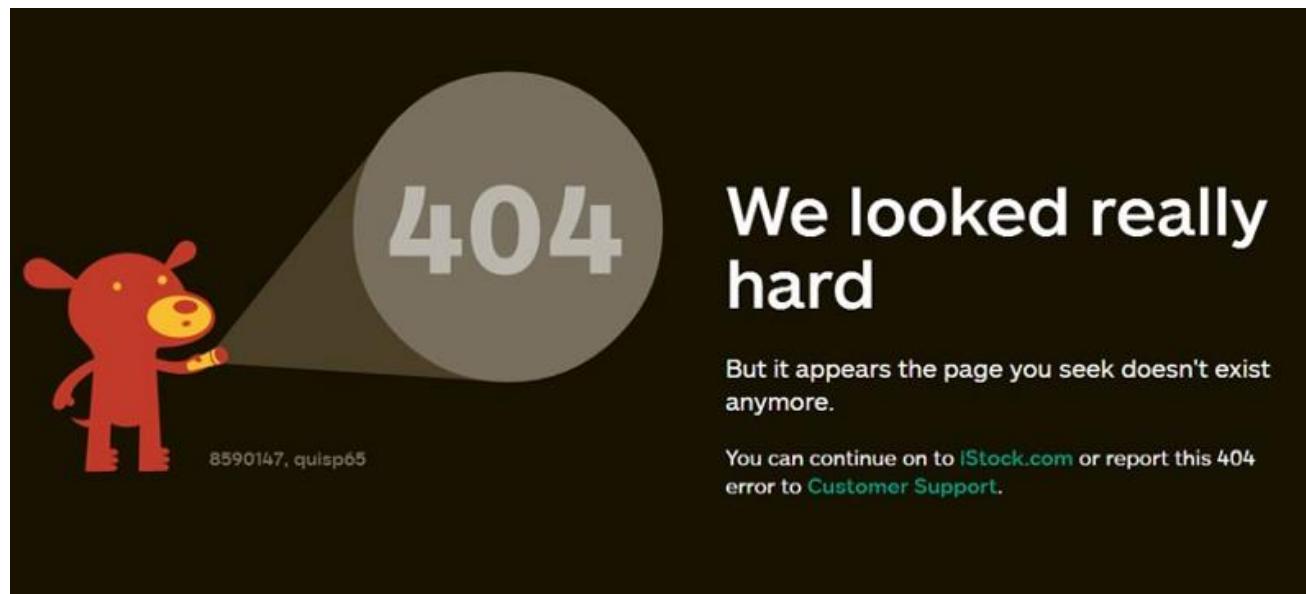
HIGH



Help users recognize, diagnose, and recover from errors

Error messages should be expressed in plain language (no codes), precisely indicate the problem, and constructively suggest a solution.

Example: iStockphoto's 404



Help users recognize, diagnose, and recover from errors

Error messages should be expressed in plain language (no codes), precisely indicate the problem, and constructively suggest a solution.



ISSUES

1 The **error messages are system centric.** It is difficult for the user to comprehend the error messages/messages which are technical jargons.

SOLUTION GUIDELINES

Error messages should be written in a way that is understandable to the users.

SEVERITY LEVEL

LOW

MEDIUM

HIGH



Help and documentation

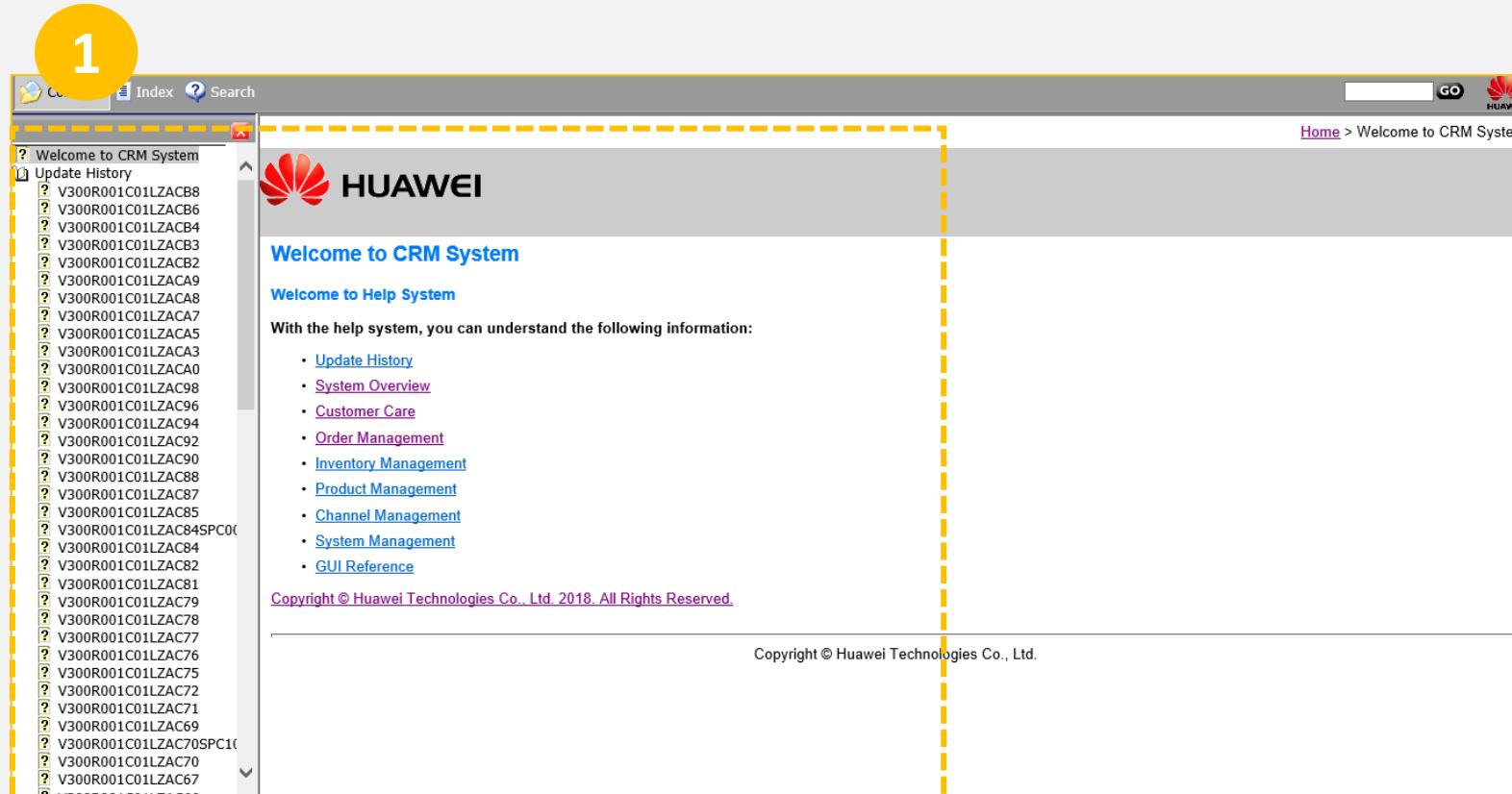
Even though it is better if the system can be used without documentation, it may be necessary to provide help and documentation. Any such information should be easy to search, focused on the user's task, list concrete steps to be carried out, and not be too large.

Example: Beam's KBS repository

| | | | | | | | |
|-------------------|-----------------------|-------|---------|-----------------|--------|-------|---|
| Knowledge channel | call center channel ▾ | Brand | Content | Title | Search | Reset | <input type="checkbox"/> Expired services |
| South Africa 0 | | | | Retentions Team | | | |

Help and documentation

Even though it is better if the system can be used without documentation, it may be necessary to provide help and documentation. Any such information should be easy to search, focused on the user's task, list concrete steps to be carried out, and not be too large.



ISSUES

1 The Help and documentation uses a lot of **Technical Jargon**.

SOLUTION GUIDELINES

The Help and Documentation should have:-

1. A customer's Perspective rather than a system's perspective.
2. Frequent Updates: Highlighting the most common queries that each department gets (Weekly, Monthly) which an agent can relate to
3. The common errors and actions
4. Best Case Update: Updating the best case resolutions of customer queries that are complicated to motivate the agents

SEVERITY LEVEL

LOW

MEDIUM

HIGH

Issues

-  The **system does not adapt to the user, the user has to adapt to the system**. In the current system the user has to perform too many clicks and toggle through multiple tabs to attend/resolve one call/query. This unnecessarily increases the frustration level and time. It also reduces the efficiency and the productivity of an agent
-  The system is **not intuitive** as it does not prompt a user for next step. The **system needs to communicate based on most likely used tabs & functionality for each query type**.
-  **System does not recognize expertise of Users (Beginner, Novice and Expert)**. Hence, The restricted Intelligence in System tends to impact the query Handling time of the Agents as well as the overall customer Journey.
-  The **interface is not customizable** for user. Different users may have different requirements. If customized, the agent will have more freedom and control on using the system according to there own daily requirement.
-  The System **uses technical jargon** in multiple areas **which needs to be simplified**. **Specific type of users (eg. Beginner) may have difficulty to understand it**.
-  **No specific area** in the system for **notifications or quick checklist** for the day to day task and over due of task from previous day. The users has to spend lot of time and effort on every call everyday **between their personal notes and system in use** to get an overview of their previous day and to plan their current day and next day follow ups.

SEVERITY LEVEL



LOW



MEDIUM



HIGH

EASE TO FIX LEVEL



EASY



MEDIUM



HARD

Issues

-   **Navigation structure is complex.** There is **no visual hierarchical structure** for the information.
-   Different behavior of the same component makes it difficult and **confusing to perform a task.**
-   The CTA buttons are placed far away from the actionable items. According to one of the Gestalt's principle, also called "grouping," the principle concerns the effect generated when the collective presence of the set of elements becomes more meaningful than their presence as separate elements.
-   There is **hardly** any white space for **Visual Relaxation.** The elements should be arranged according to the principles and elements of visual design.
-   The system components are making it difficult and **too complex in terms of navigating.** There are scroll inside scroll, tabs within the tabs, repetitive text fields etc.
-   The **input fields** which are **not required/mandatory is taking up a lot of space.**
-   **Error messages are not user friendly.** Some of the existing error pop ups are using technical language which could be difficult to understand.

SEVERITY LEVEL



LOW



MEDIUM



HIGH

EASE TO FIX LEVEL



EASY



MEDIUM



HARD

Issues

-   The **components are misleading**, outdated and inconsistent. All the components should be updated as per the new standards and should be consistent across the pages.
-   Current **Search System increase the Cognitive load** on user by making search bar and its functionality complex and confusing.
-   Naming Convention of Break up of bills is currently based on number of days (30 day cycle, 60 and 90) which creates confusion and less understanding for the agents, rather title of the bill should be minimalist in nature for understanding of Agents and end user.
-   The Bill Language should be as per the mental model of the end user as Beginner or Intermediate user may not be able to connect with Telecom Jargons.
-   The **existing landing page does not fully utilize the available space** , it can be enhanced as per the agents requirement for eg we can enrich agent information like Last day Performance , current day target and expectation, hot deals for the day, Performance till date etc.

SEVERITY LEVEL



LOW



MEDIUM



HIGH

EASE TO FIX LEVEL



EASY



MEDIUM



HARD

Strong Concepts

1. KBS

The KBS is a great help for a new user to learn about the processes. But it can be designed in a more user friendly way by making it more visual. E.g. Using images/screenshots of the actual screen.

2. User Help system

Providing help to the user is a good practice. The information should be available whenever the help is required. The system has a help section which is useful to the user in case quick help is required.



Key constraints and future quick wins...

1. Personalized Agent dashboard

The new system should give the agent a holistic (360 degree) view of the customer and the ecosystem. Personalized dashboard for the user to see their daily tasks like worklist, pending items, actionable items, An information kiosk where they can track their performance and also compare it with overall team performance. This will help the agents to get a holistic view.

2. User centric interactions – key focus on structure and content simplification

Our system should speak the user's language e.g. the bill language should be as per the mental model of the end user. The error messages should communicate the exact problem rather than giving any technical jargons. The error messages could be more personal and fun to improve the user experience.

4. Visual Design – Aesthetical and Minimalistic approach

The complete visual treatment for the system is required. All the components and the visual styles are outdated. We can achieve that by introducing a system which is aesthetically pleasing and functionally strong enough to improve the user experience. The form and function of the new system should compliment each other. By designing a system with improved user experience, we will also reduce the cognitive load of the user.

5. Workflow based adaptive interface -

The system should remove input fields that are not used by agents of that particular department. We should introduce an experience based adaptable interface. The algorithm will be based on years of experience, business function, technical expertise and other relevant skillsets.

6. Intelligent training ecosystem

Scenario based help and guidance for supporting continual learning linked to career evolution.

