Eswatini Electricity Company

USER MANUAL DOCUMENT

Billing Portal v2

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1. Introduction

Due to its age, the postpaid billing system has become cumbersome to use and lacking in modern features that other systems have. In the current system, it is not possible to adjust all bill generating parameters, it is not possible to show analysis on bills, and it not possible to email or sms bills to customers. In response to these short falls, the IT department has created a complementary "billing portal" that integrates with the billing system to extract data that is then used on a new, friendlier and modern platform. Diagram 1 below is an architecture diagram show how the data moves from the billing to the portal. The emailing portal allows for the capturing of customer emails and numbers, emailing of bulk and individual bills, downloading of bills, bill adjustments, age analysis and system user management. This document outlines the steps followed in performing certain tasks within the portal.

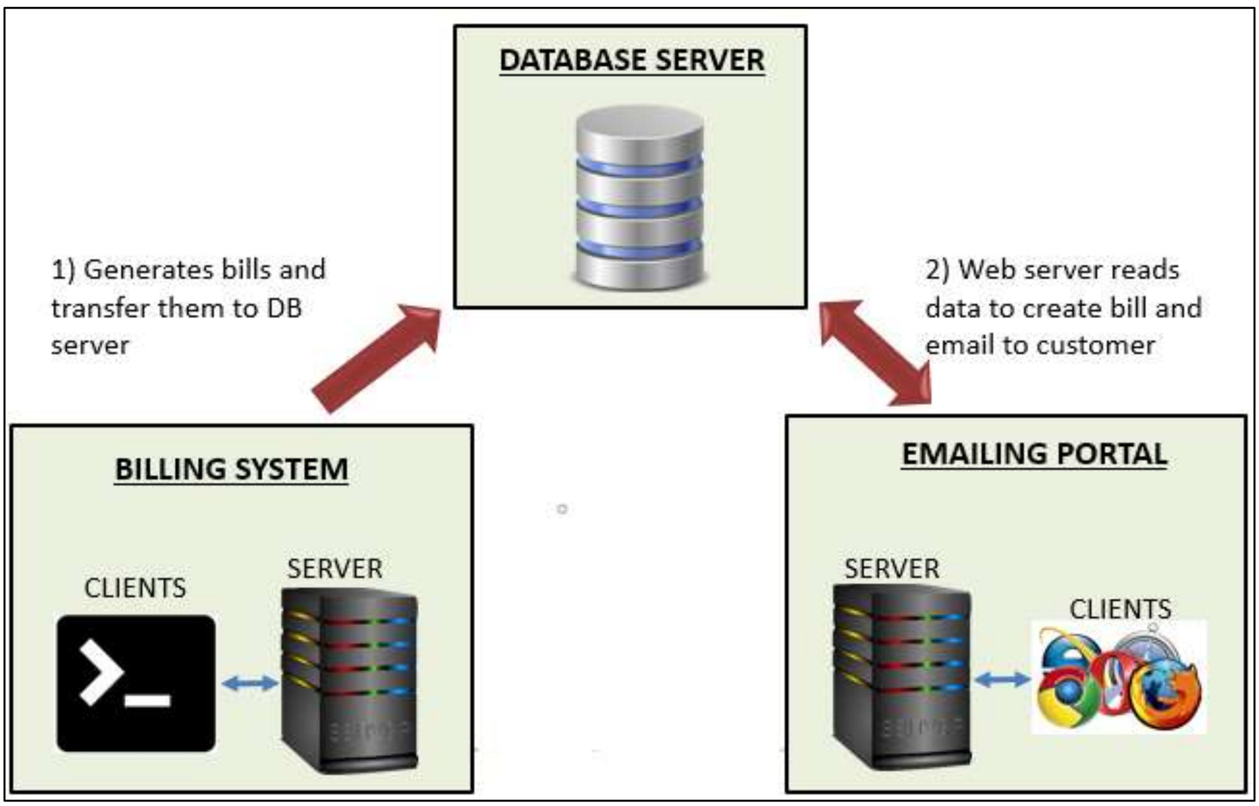

Diagram 1: Billing Portal Architecture

2. Login

- Open web browser (Microsoft Edge, Firefox, Chrome preferred)
- On the address bar type : ‘147.110.192.223/billEmailProd’
- Enter username and password
- On successful login, users will only see tabs allowed by their roles (user, billing, admin)

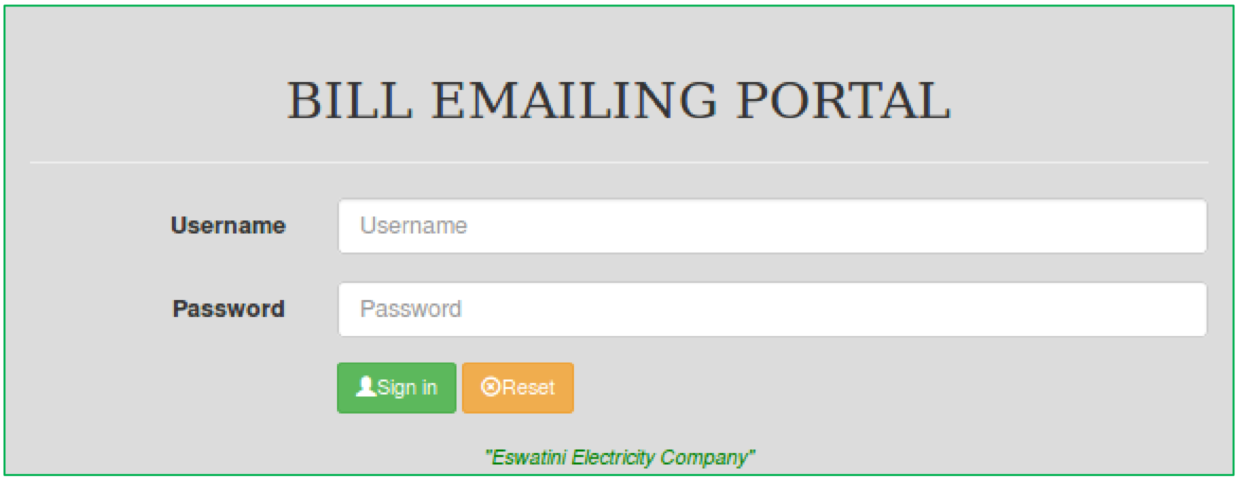

Diagram 2: Login Screen

NB: When either username or password is not filled, the system will produce the error

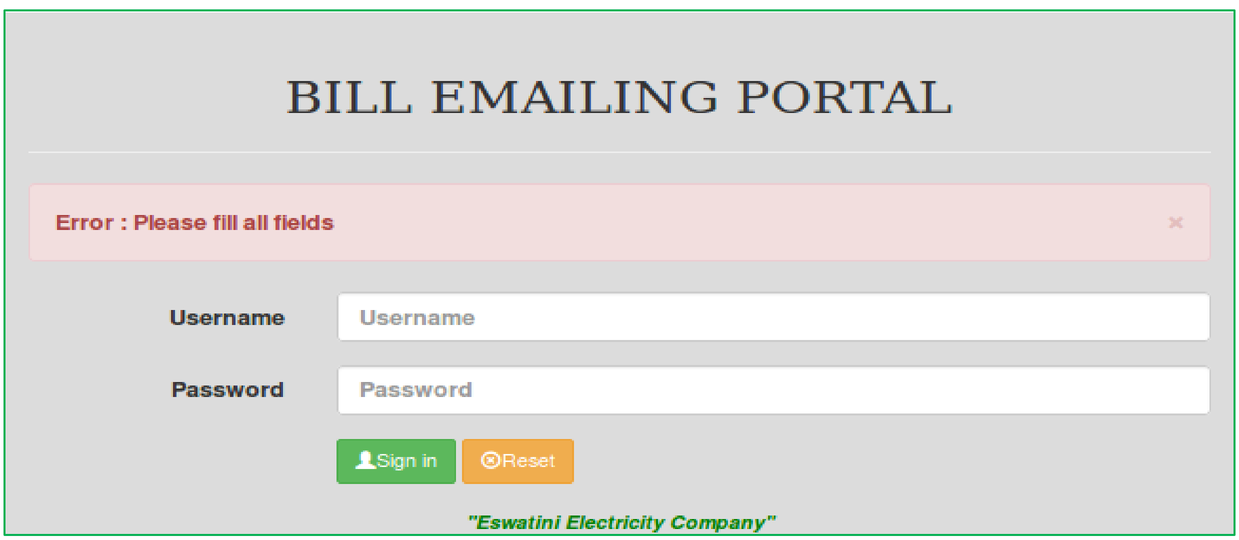

Diagram 3: Login Screen Error

3. Account listing

On successful login, the user is redirected to the '**Demand list'** tab by default. Demand customer accounts and emails as well as numbers are displayed here. Domestic customer accounts are displayed on the '**Domestic List'** tab adjacent to the '**Demand List'** tab. Accounts have a status indicating whether a bill for that month should be sent or not. Each account can be edited or removed by pressing the '**Edit'** or '**Remove'** links next to it. Accounts are listed in a paginated data table with a search box on top to filter data using any of the displayed fields.

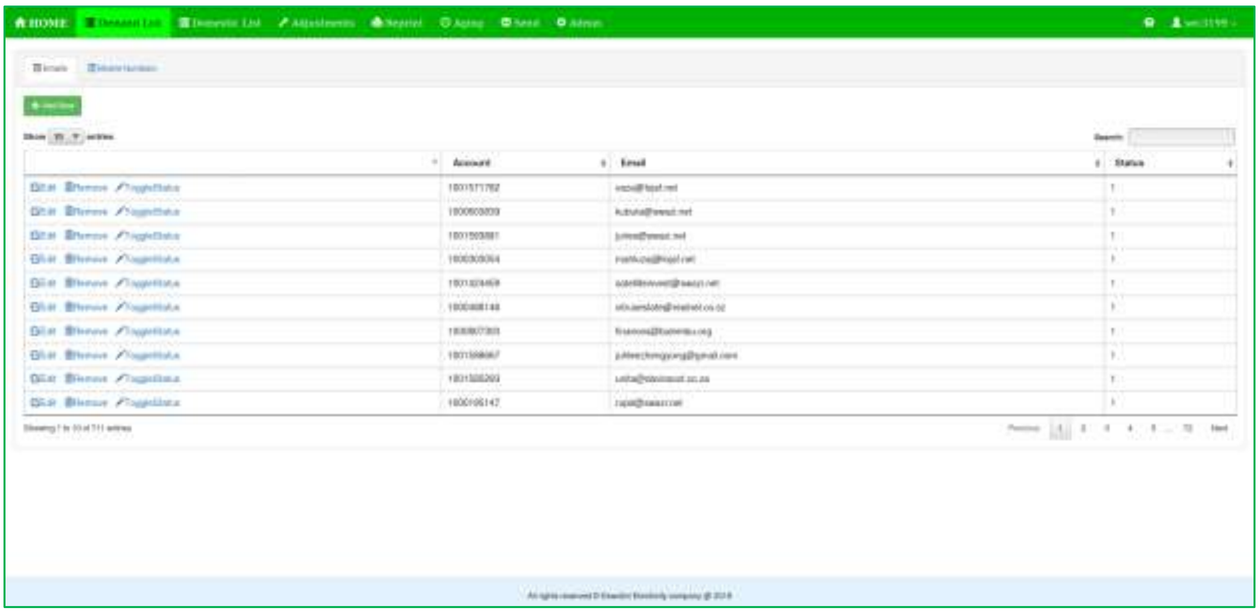

Diagram 4: Demand emails

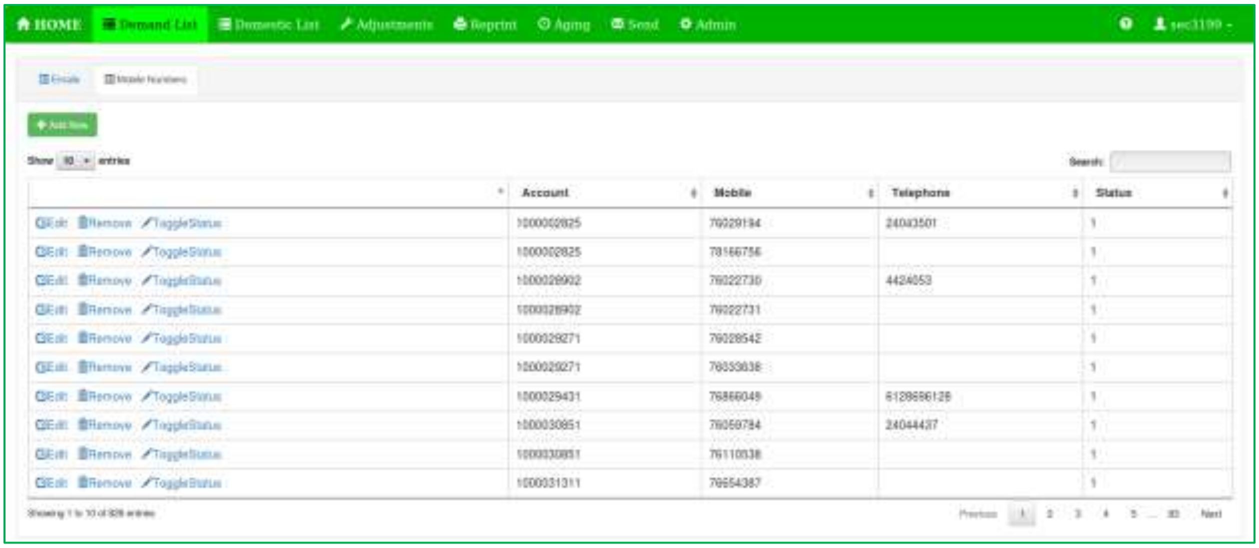

Diagram 5: Demand numbers

4. Emails

Customers requesting for their bills to be emailed need to first submit their information (contact numbers, email address, account number) for registration as the current billing system does not have that information. These details are added into the portal by the billing personnel and linked to the customer using account numbers. During bill emailing, only accounts with registered email addresses are emailed.

4.1 Add Email

To add a new email into the portal;

- Select the customer classification list tab (Demand List or Domestic List) in the menu bar. Demand and Domestic bills have different bill templates hence the separation.
- Select the first tab '**Emails'.**
- Click the '**Add New**' green button above the email listing table.
- Enter the account number and email address.
- Please note that you can have multiple email addresses for the same account number or multiple account numbers with the same email address, but not the same combination of

email and account number. The account number should be a valid one as well.

- Press the '**Add'** button to add the email address.

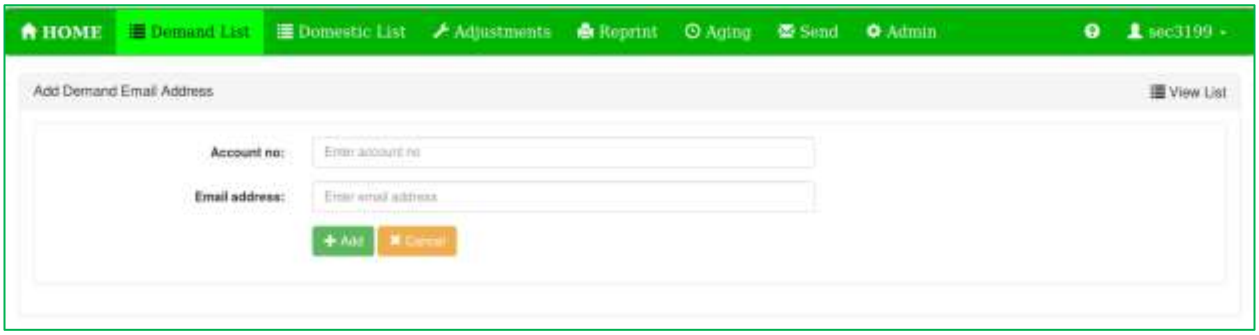

Diagram 6: Add new email

4.2 Update Email

A customers' account and email address modified as requested by customer. To add update an account;

- Select the customer classification list tab (Demand List or Domestic List) in the menu bar.
- Select the first tab '**Emails'.**
- Select 'Edit' on first column of the table next to the email of interest.
- Modify the account number and email address, ensuring they are valid and not duplicate.
- Press the '**Update** button to update the account

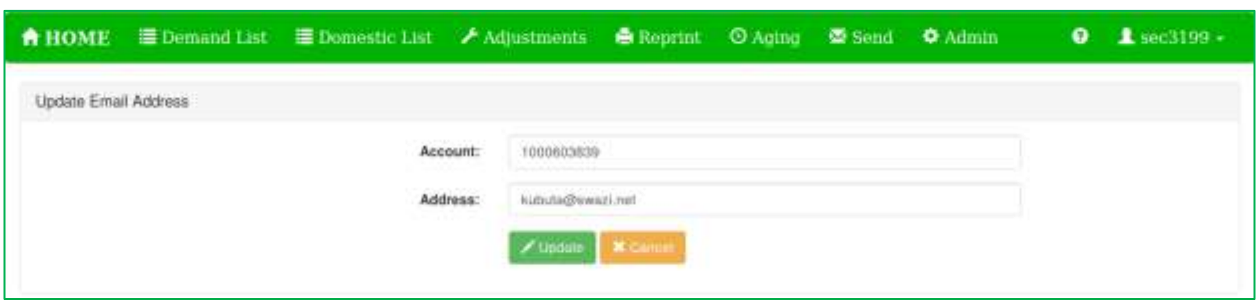

Diagram 7: Update account

4.3 Remove Email

In case of customer termination or conversion to prepaid, an email entry my need to be removed from the system. To remove an email;

- Select the customer classification list tab (Demand List or Domestic List) in the menu bar.
- Select the first tab '**Emails'.**
- Select '**Remove'** on first column of the table.
- Confirm account and address information.
- Press the '**Remove** button to remove the email entry.

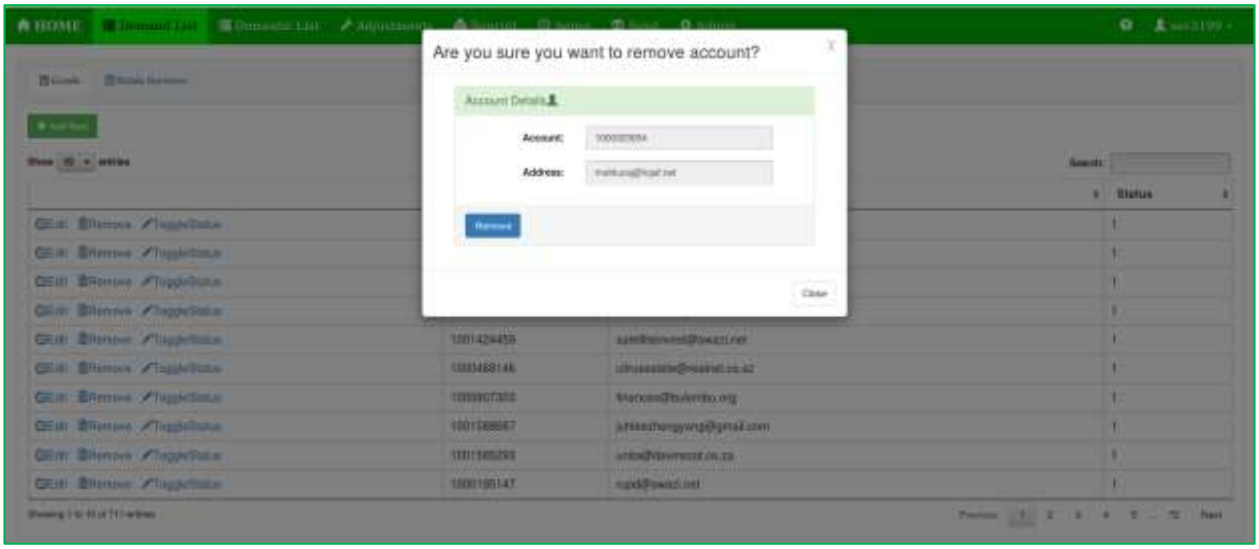

Diagram 8: Remove email

4.4 Toggle email status

The billing system does not immediately reflect bill adjustments on the adjusted bills. More over the available adjustable fields are only the units and amounts due. In case a customer's consumption or revenue have been adjusted, other affected bill parameters are not adjustable and for the bill to be correct, they have to be manually typed in a word document and printed in a type writer using EEC bill template. All adjusted bills then cannot be emailed as they cannot be system generated. it is manually adjusted and the original in the billing system should not be sent to the customer. To prevent sending of adjusted bills, each account in the portal has a status of **zero** or **one** indicating whether a bill should be emailed or not. To change the status;

- Select the customer classification list tab (Demand list or Domestic list) in the menu bar.
- Select the first tab '**Emails'.**
- Select '**ToggleStatus'** on first column of the table
- This will change the status from zero to one or one to zero depending on current value
- Once done, a success message will be displayed like the one below.

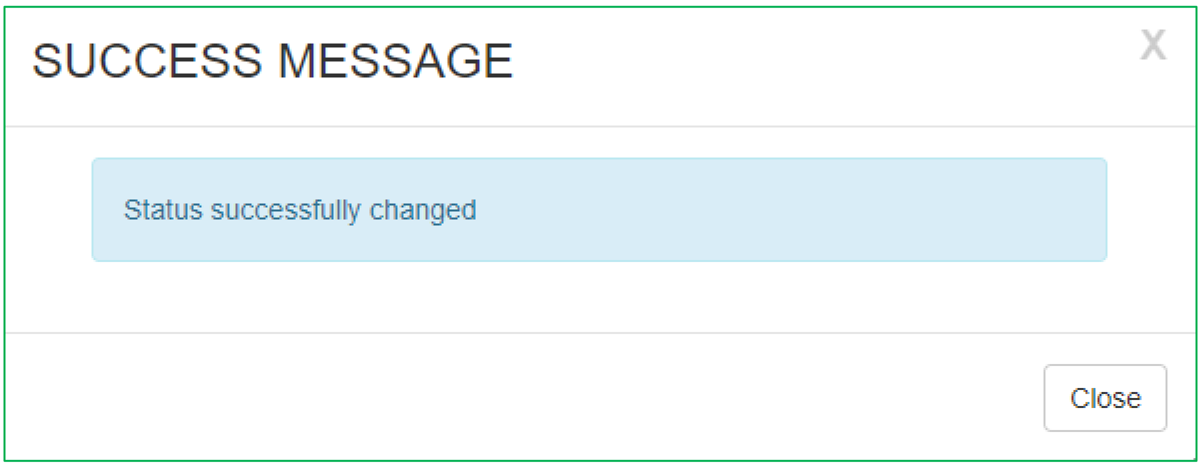

Diagram 9: Toggle Account Status

5. Numbers

To improve customer communication, EEC IT has integrated an SMS service with the Billing Portal. This service will allow the billing personnel to send SMSes to customers notifying them of bills, disconnections, payment reminders, etc. For customers to receive SMSes, they first have to register they contact numbers (mobile, telephone, account) with the billing personnel.

5.1 Add Contact Numbers

To add a new account into the portal;

- Select the customer classification list tab (Demand List or Domestic List) in the menu bar.
- Select the second tab '**Numbers'.**
- Click the '**Add New**' green button above the numbers listing table.
- Enter the account number, mobile number and an optional telephone number.
- You can have multiple contact numbers for the same account number or multiple account numbers for the same contact numbers.
- Press the '**Add'** button to add the contact numbers.

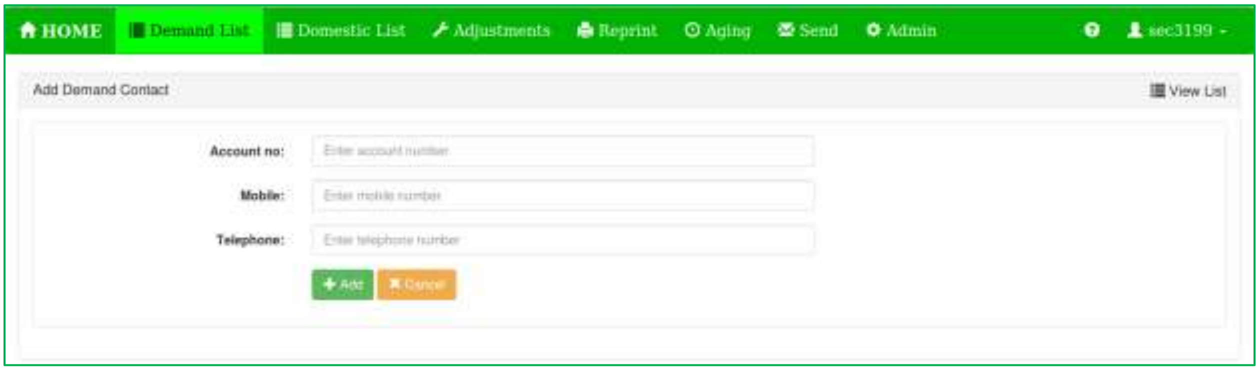

Diagram 10: Add new contact number

5.2 Update Contact Numbers

A customers' account and email address modified as requested by customer. To add update an account;

- Select the customer classification list (ie Demand list or Domestic list) in the menu bar.
- Select the second tab '**Numbers'.**
- Select '**Edit'** on first column of the table.
- Modify the account number and contact numbers address, ensuring account number and mobile number are valid and not duplicate.
- Press the '**Update** button to update contact numbers.

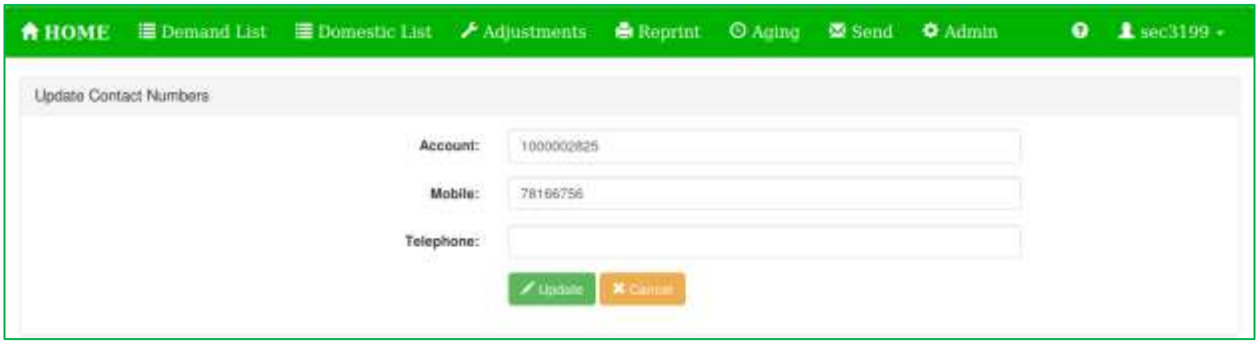

Diagram 11: Update contact numbers

5.3 Remove Contact Numbers

In case of customer termination or conversion to prepaid, a contact numbers entry my need to be removed from the system. To remove contact numbers;

- Select the customer classification list tab (ie Demand List or Domestic List) in the menu bar.
- Select the second tab '**Numbers'.**
- Select '**Remove'** on first column of the table.
- Confirm account and contact information.
- Press the '**Remove** button to remove the contact numbers entry.

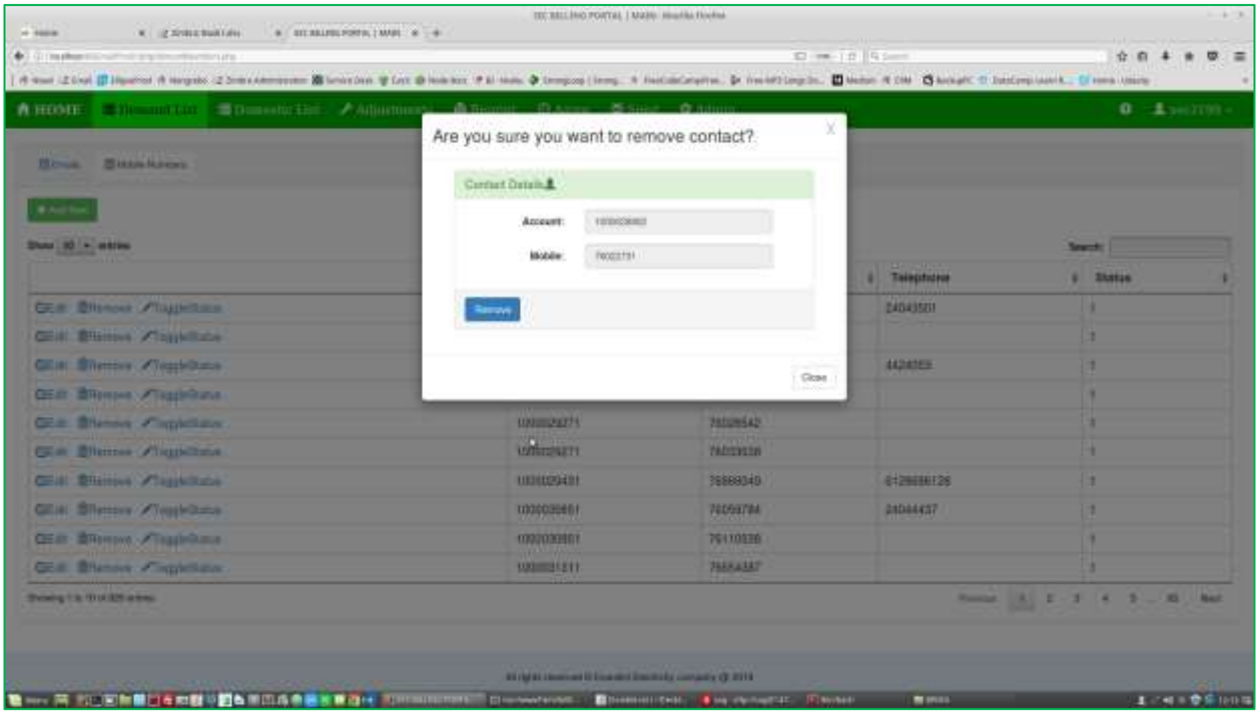

Diagram 12: Remove contact numbers

5.4 Toggle Contact Numbers Status

To prevent sending bill SMSes of adjusted bills, each account in the portal has a status of **zero** or **one** indicating whether a bill should be sent or not. To change the status;

- Select the customer classification list tab (Demand list or Domestic list) in the menu bar.
- Select the second tab '**Numbers'.**
- Select '**ToggleStatus'** on first column of the table
- This will change the status from zero to one or one to zero depending on current value
- Once done, a success message will be displayed.

NB: If status was changed on the email tab, there is no need to change it here.

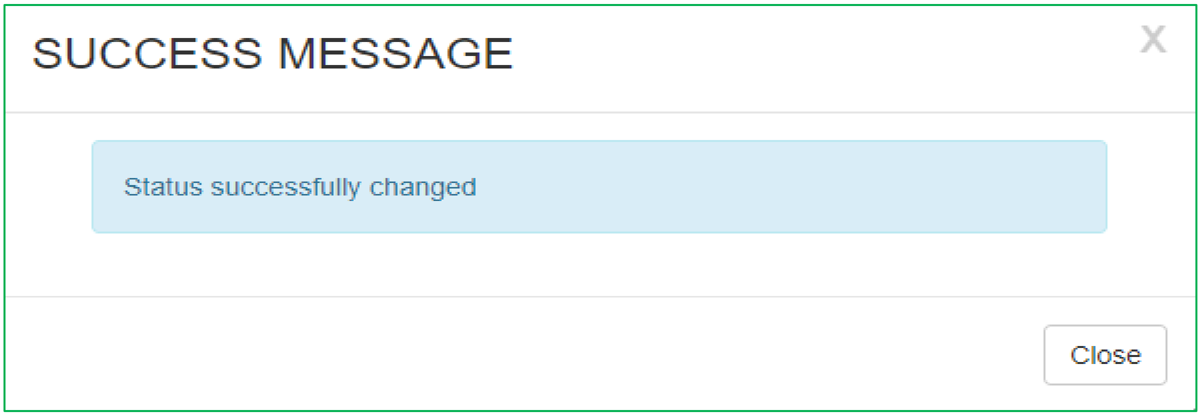

Diagram 13: Toggle Contact Numbers Status

6. Adjustments

The billing system does not immediately reflect bill adjustments on the adjusted bills. More over the available adjustable fields are only the units consumed and amounts due. In case a customer's consumption or revenue have been adjusted, other affected bill parameters are not adjustable and for the bill to be correct, they have to be manually typed in a word document and printed in a type writer using EEC bill template. This process is not only cumbersome but error prone as well. To eliminate the manual adjustment and printing of bills, the portal allows for the adjustment of bills online and automatic sending to printers for printing using the normal way. This action is critical and therefore given to only one person. All action is recorded for audit purposes.

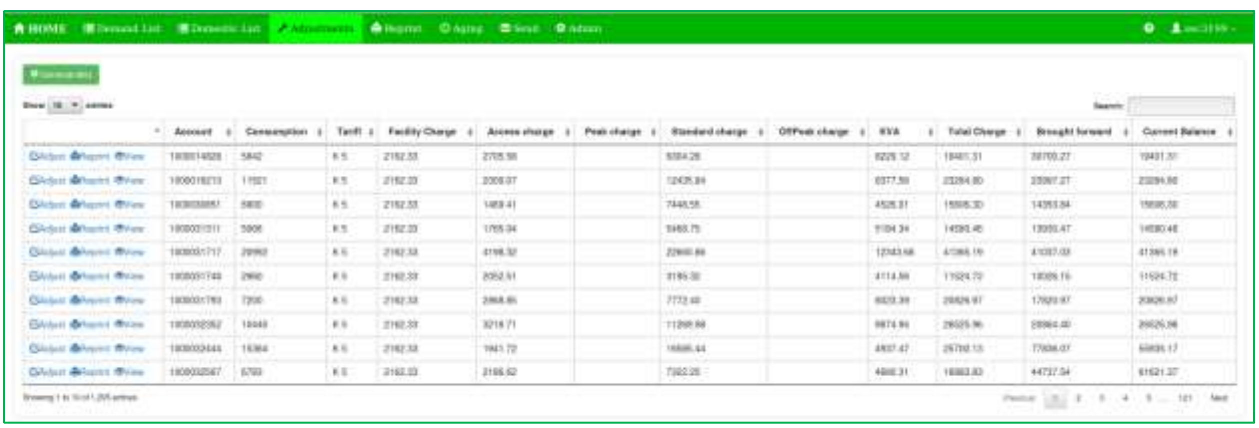

Diagram 14: Bill Adjustment Listing

6.1 Adjust Bill

To adjust a customer bill;

- Select the ‘**Adjustments’** in the menu bar. A list will display with key bill information that can be adjusted. Next to each bill information are three links; Adjust, Reprint, View.
- Select the ‘**Adjust’** link on the first column of the table.
- Adjust fields of interest.
- Press the ‘**Adjust Bill’** to adjust the bill.

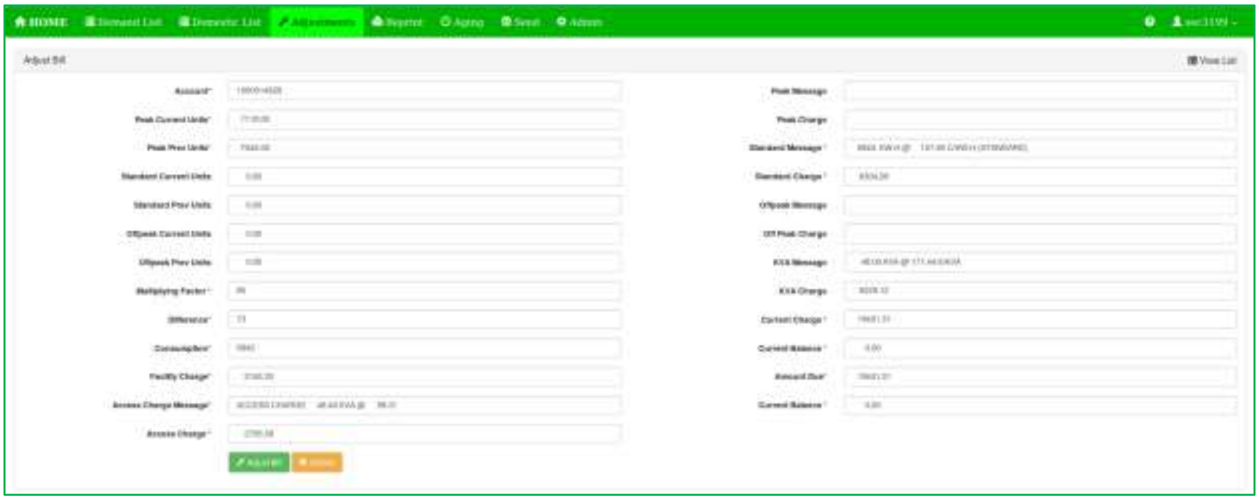

Diagram 15: Adjusting bill

6.2 Send Adjusted Bills for Printing

Every adjusted bill is marked and after all bills have been adjusted, they can then be sent to the billing printers for printing. These adjusted bills won’t be printed automatically, but will be transferred to the billing system which has direct connection to the printers. A communication will then be needed to notify IT to print the bills. To send adjusted bills for printing;

- Select the ‘**Adjustments’** in the menu bar. A tabular list will display with customer bills.
- Select account class (Demand, Domestic) tab
- Enter account number
- Select bill month from dropdown menu

- Press the ‘**Generate Bills’** green button above the bills table. This will create a list of bills from the adjusted bills, then send the file to the billing system.

7. Age Analysis

Customers’ debts age with time from the bill date. This ageing is monitored by the credit control team to inform customers due for disconnections, and payment follow ups. A MySQL ODBC driver is currently used to link the age analysis data to user’s Microsoft Excel sheets, which works well. The portal extends that service by providing the age analysis online without the need of the driver. It allows the team to view, filter and download age analysis as well as view ageing balances.

7.1 Search Age Analysis

To search the age analysis data;

- Select the ‘**Aging’** in the menu bar. A list of customers and their debts will be displayed.
- You can enter an account number in the box above the table to search or enter any search parameter in the table search box.
- If there is no data for entered accounts, press the ‘**Retrieve next 500**’ button to go to the next list as the data is split in lists of 500s.

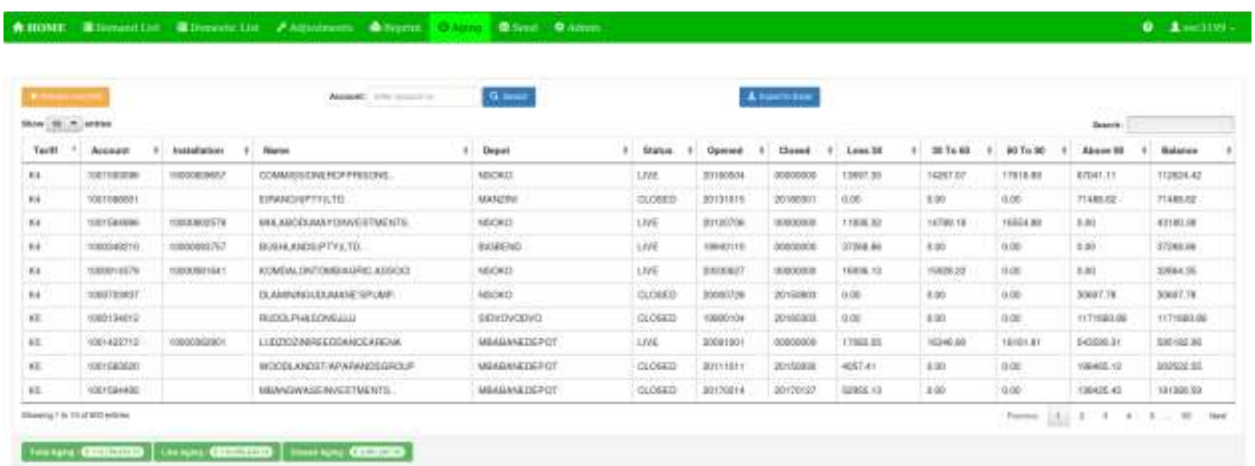

Diagram 16: Age analysis

7.2 Save Age Analysis

To download the age analysis data;

- Select the '**Aging**' in the menu bar. A list of customers and their debts will be displayed.
- Press the '**Export to Excel**' button.
- A csv file will be download and can be opened using Microsoft Excel.

8. Reprints

Customers from time to time request their bill statements, either because they did not receive email or they want previous bills. The portal allows for downloading or emailing of individual bills.

8.1 Downloading

To save a customer's bill statement on local disk;

- Select the '**Reprint**' in the menu bar.
- Select account class (Demand, Domestic) tab
- Enter account number
- Select bill month from dropdown menu
- Press the '**Save PDF**' button to download the bill
- The account number has to exist and be active in the billing system, otherwise an error will occur

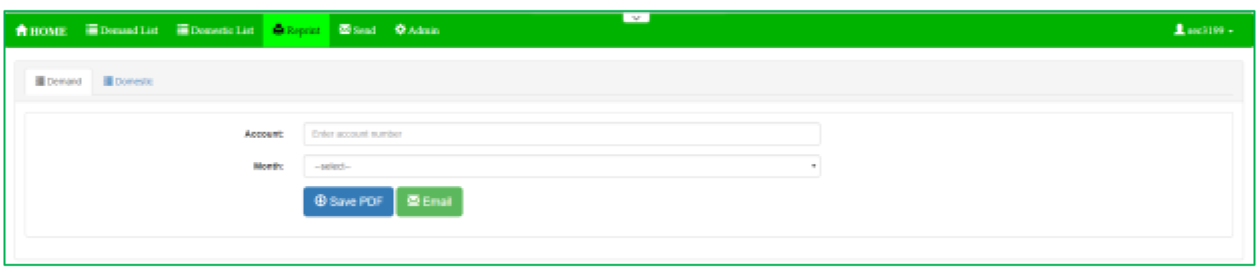

Diagram 17: Download bill

8.2 Emailing

To email a customer's bill statement;

- Select the '**Reprint'** in the menu bar.
- Select account class (Demand, Domestic) tab
- Enter account number
- Select bill month from drop down tab
- Press the '**Email'** button
- A modal will appear with the entered information. If the account has an email attached to it, it will be displayed, but can be modified. If not, enter the customer email
- Press the '**Send Email**' button

Diagram 18: Email Bill

9. Send Bills

After customers have been billed in the billing system, their bills are transferred to the portal so they can be emailed. This is bulk bill emailing and is done once a month for Demand and Domestic. As the bills are emailed, the system logs the account, email, and time sent. Errored accounts are marked so that upon correction, bills can be resent.

9.1 Send Emails

To email bills;

- Select the '**Send** in the menu bar.
- Select account class (Demand, Domestic) tab
- Note the account month selected by default and cannot be adjusted
- Press '**Send Bills**' button to send emails or '**Resend Bills**' to send errored bills.
- The system will process the bills, sending 50 bills per 30 minutes (Barracuda restrictions)
- Once done, an entry will be inserted on the '**Previous Instances'** table

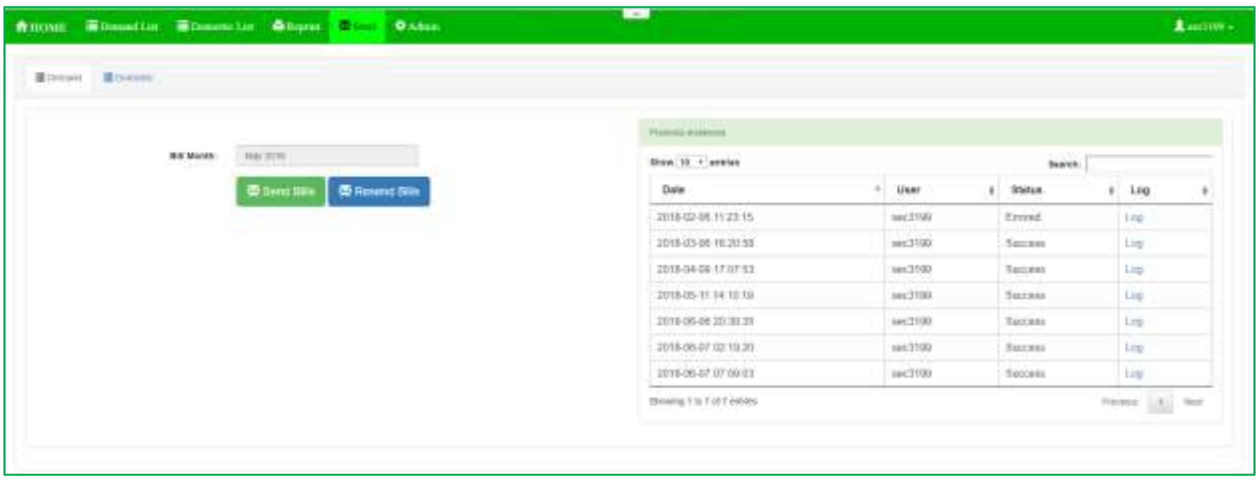

Diagram 19: Send email bills

9.2 Send SMSes

To send SMS bills;

- Select the '**Admin'** tab in the menu bar.
- Select the '**SMS Bill Notification'** tab in the admin menu bar. The current month will be selected by default.
- Press '**Send Notification'** button to send SMSes.

- These will be directed to the SMS service that will then dispatch them.

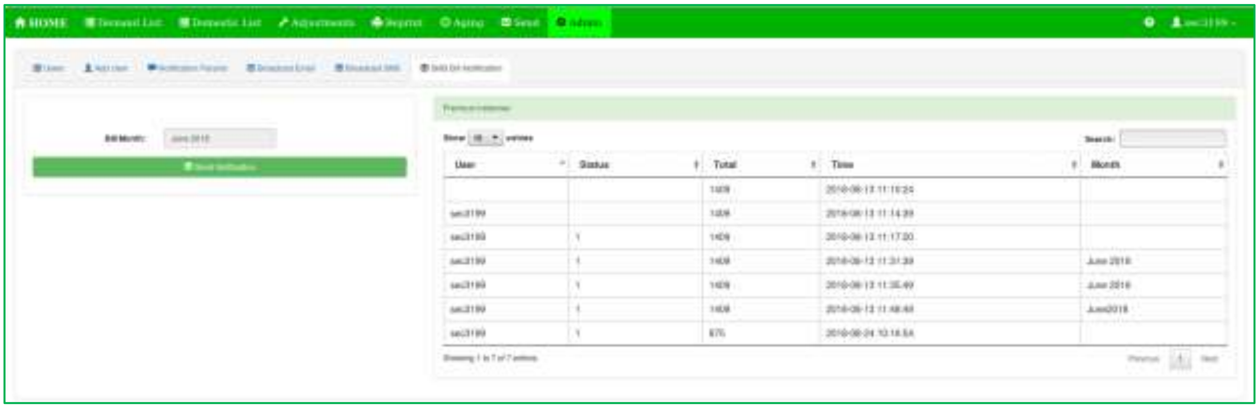

Diagram 20: Send bill SMS notifications

10. Users

In order to perform any action in the portal, a user has to be created. On creation, users are also assigned roles that give them access to certain functionalities. These roles are '**admin**' for IT, '**billing**' for billing personnel and '**use**r' for any other user. Admin roles allow for the creation and maintenance of system users. Billing role allows for the sending and resending of bulk bills. User role allows for the creation of customer accounts and reprinting of bills.

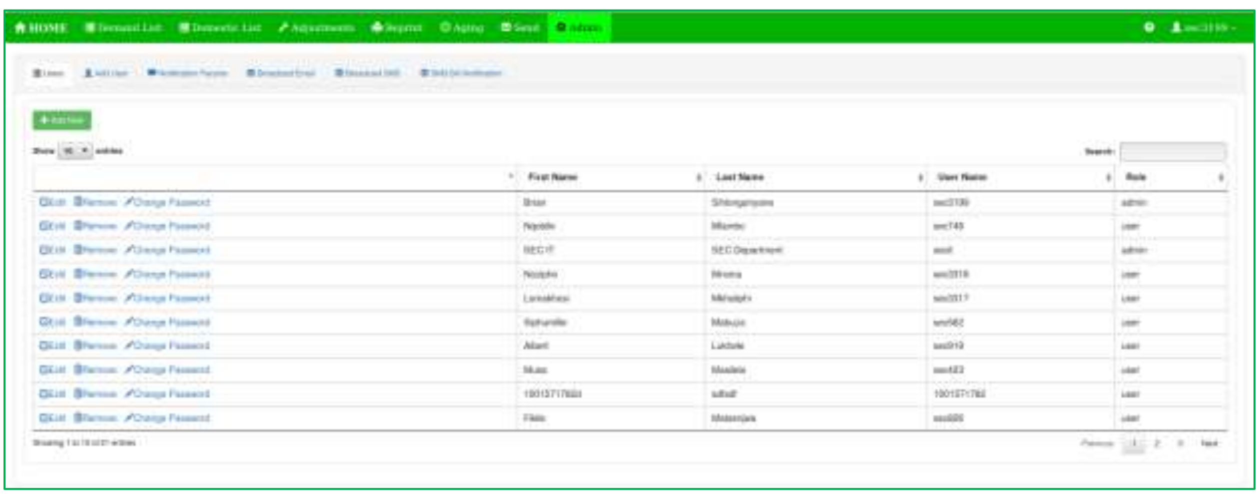

Diagram 21: User Listing

7.1 Add User

To add a user;

- Select the '**Admin'** in the menu bar.
- Select '**Add User**' tab
- Enter user information
- Press '**Add**' button

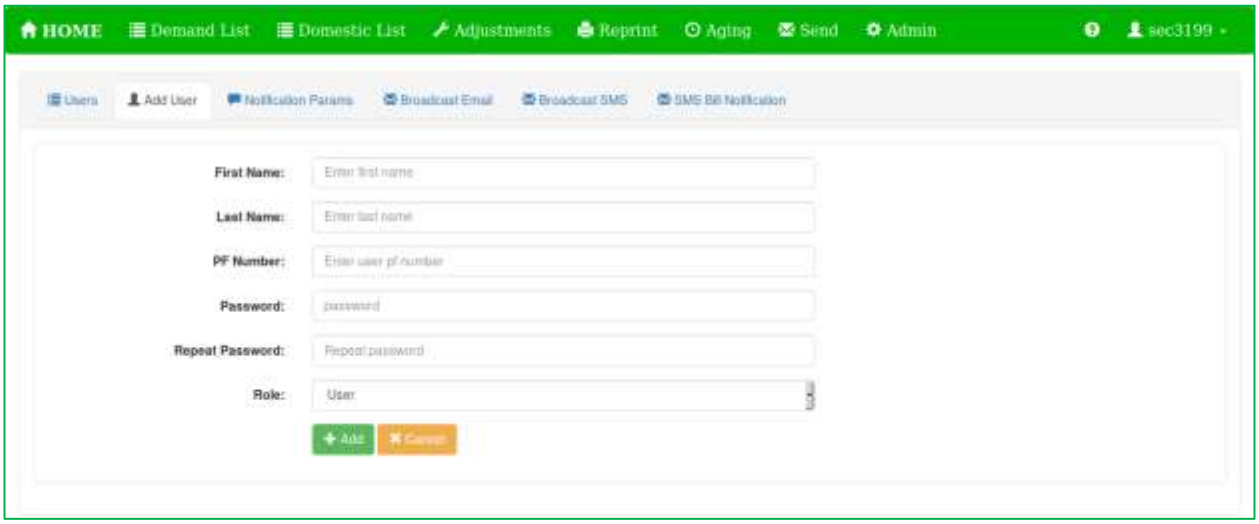

Diagram 22: Add user

7.2 Update User

To view all system users;

- Select the '**Admin'** in the menu bar.
- Select '**Users**' tab
- Users' information will display in a paginated data table with a search box on top to filter data according to any of the displayed fields. Next to each user are three links to edit, remove and change user passwords.

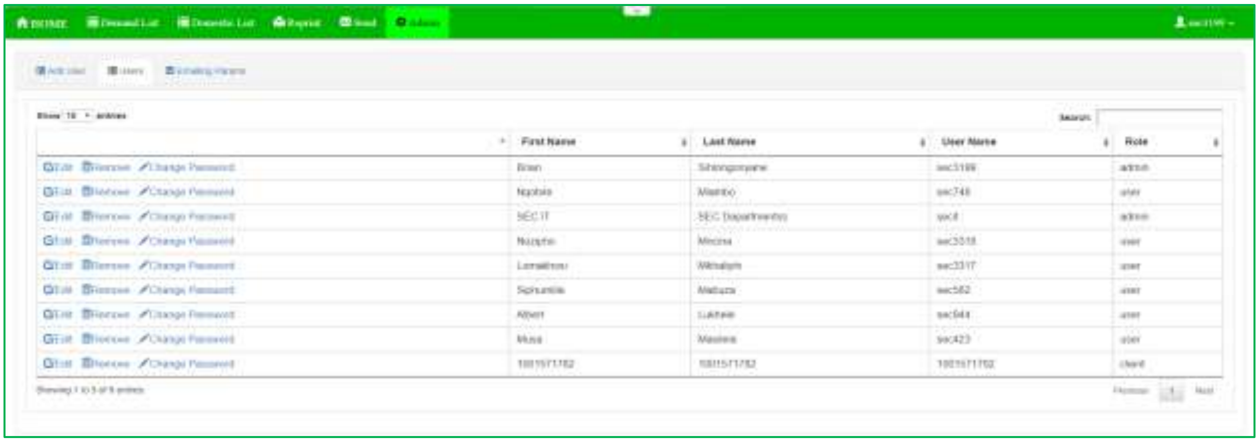

Diagram 23: Update user

7.3 Remove User

To remove a user;

- Select the ‘**Admin’** in the menu bar.
- Select ‘**Users**’ tab
- Search for desired user in the search box
- Click the ‘**Remove’** link
- Confirm by pressing the ‘**Remove’** button on the pop up modal.

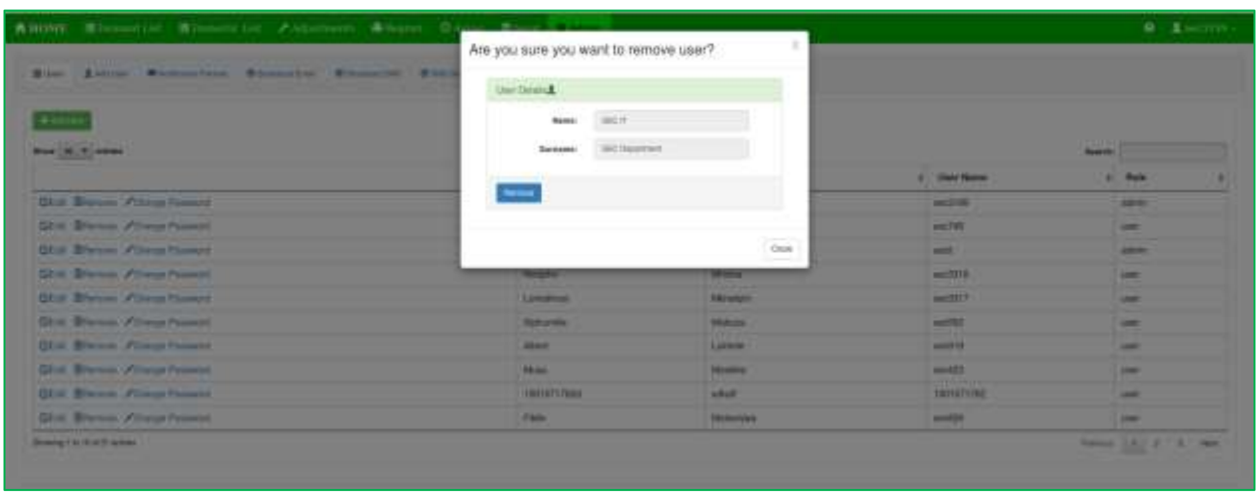

Diagram 24: Removes user

7.4 Change User Password

To change a user's password;

- Select the '**Admin'** in the menu bar.
- Select '**Users**' tab
- Search for desired user in the search box
- Click the '**Change Password'** link
- Confirm by pressing the '**Change'** button on the pop up modal.

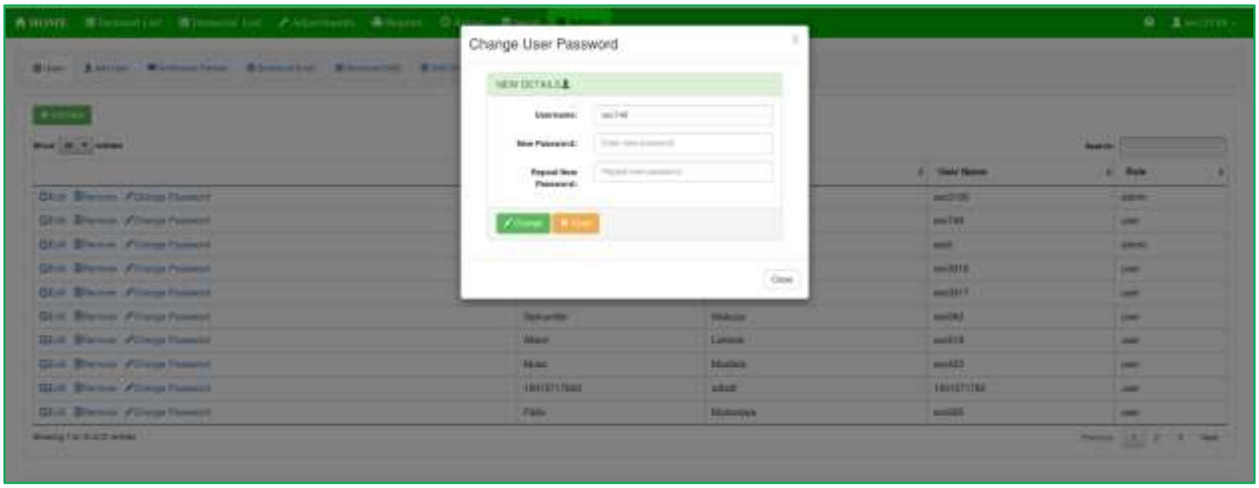

Diagram 25: Change user password

11. Configurations

11.1 Email and SMS Parameters

To add a user;

- Select the '**Admin'** in the menu bar.
- Select '**Add User**' tab
- Enter user information
- Press '**Add**' button

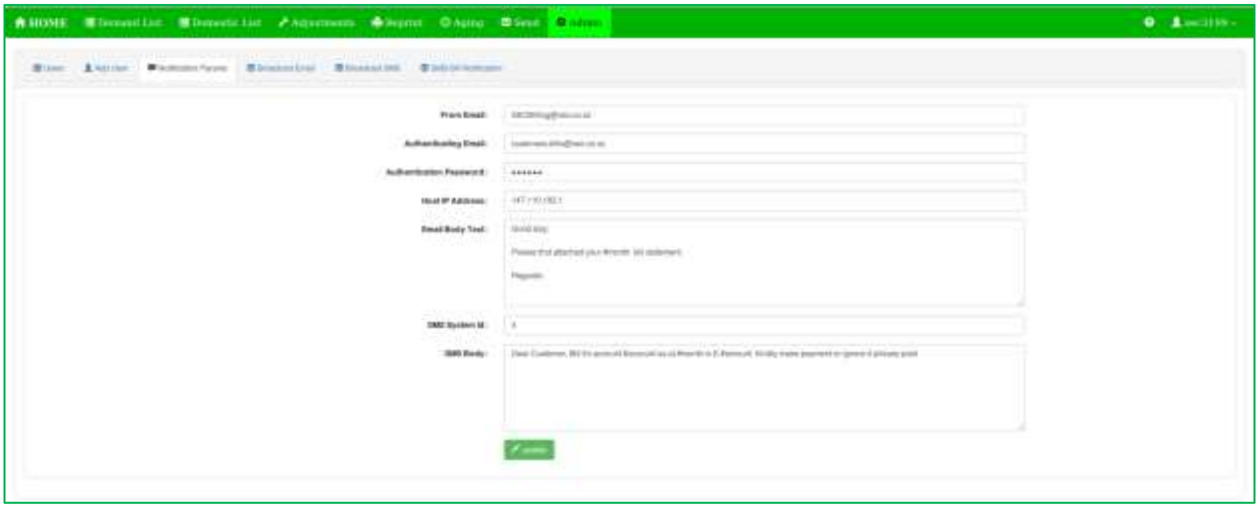

Diagram 26: Email and SMS configurations

12. Notifications

12.1 Broadcast Emails

To add a user;

- Select the '**Admin'** in the menu bar.
- Select '**Add User**' tab
- Enter user information
- Press '**Add**' button

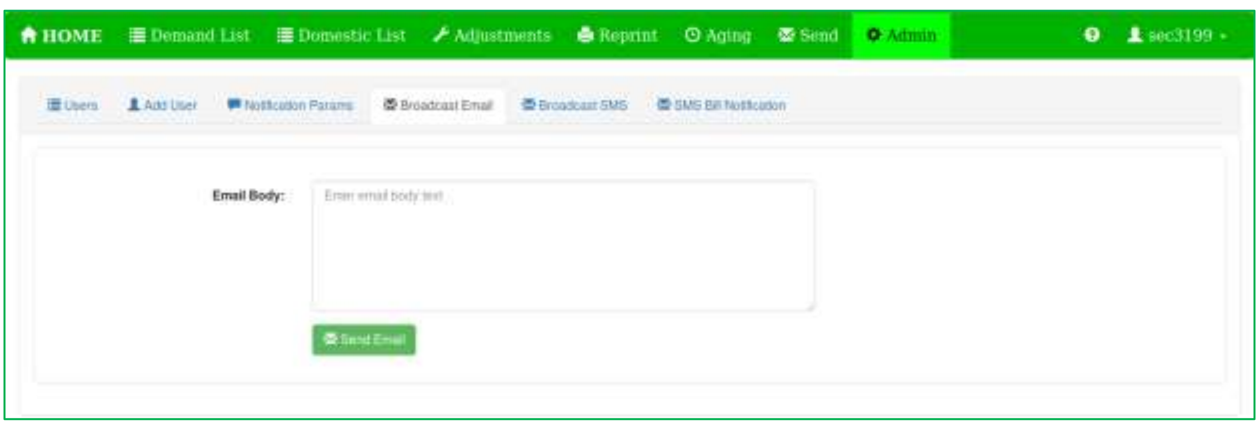

Diagram 27: Broadcasting email to all clients

12.2 Broadcast SMS

To add a user;

- Select the '**Admin'** in the menu bar.
- Select '**Add User**' tab
- Enter user information
- Press '**Add**' button

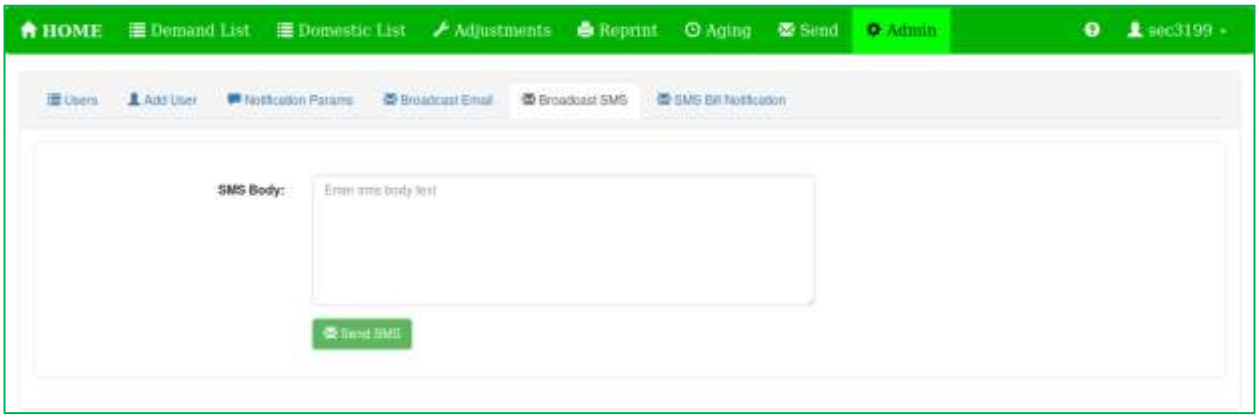

Diagram 28: Broadcasting SMS to all clients

13. Miscellaneous

13.1 Change Password

To change your own password;

- Select the drop down menu with your username on the far right of the main menu bar.
- Select the 'Change Password' drop down option.
- A modal will be displayed.
- Enter your current password to prove it is yours. Then enter new password and repeat it.
- Press the 'Change' button to change your password.

Diagram 29: Self change password

13.2 Logout

To logout from the system;

- ➢ Select the drop down menu with your username on the far right of the main menu bar.
- ➢ Select the 'Logout' drop down option. On successful logout you will be redirected to the login screen.

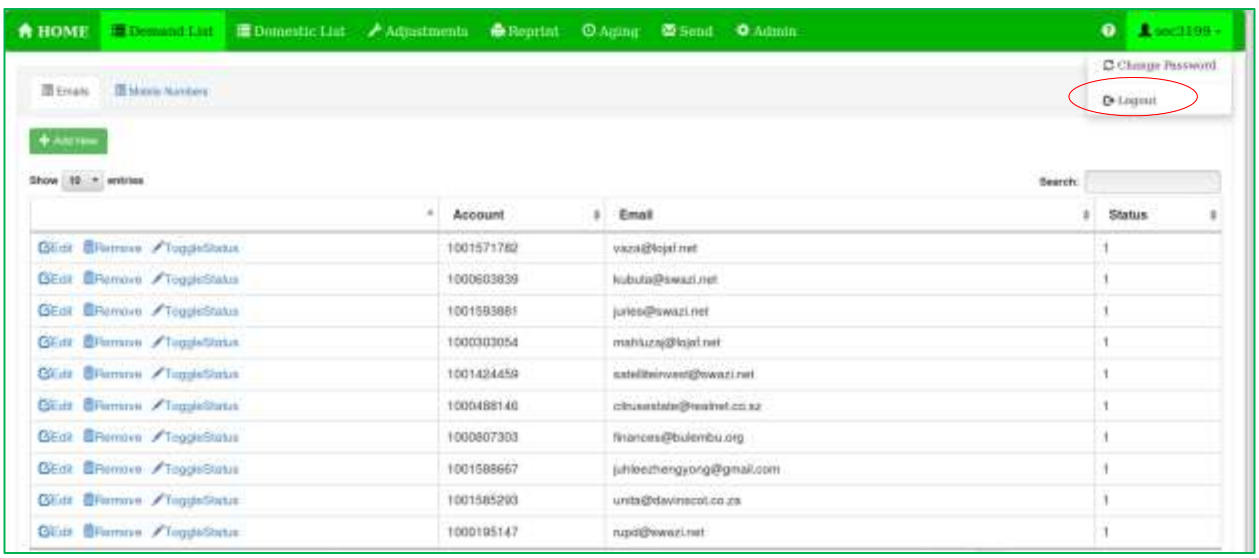

Diagram 30: User logout

13.3 About

To learn more about the portal;

- Select the question sign on the far right of the main menu bar (?).
- Select '**About'** drop down first option.

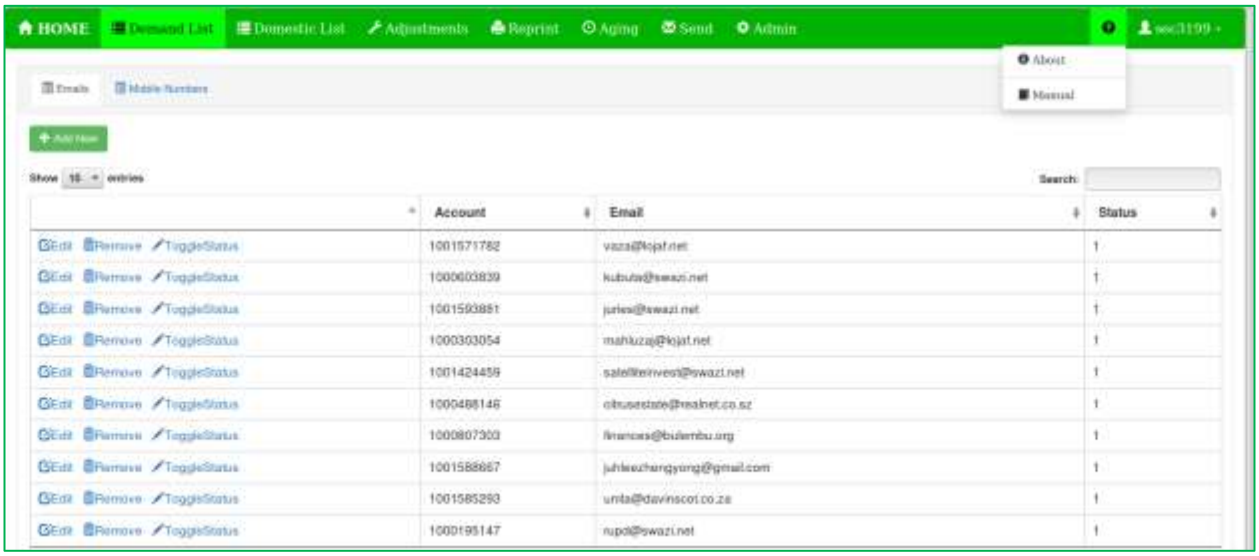

Diagram 31: About

13.4 User Manual

To access the user manual;

- Select the question sign on the far right of the main menu bar (?).
- Select 'Manual' drop down option. A PDF user manual document will be displayed on the a new browser tab. You can view it online or download it.

--END--