

# **PRODUCT: E-BILL**

## **SYSTEM TEST PLAN**

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## DOCUMENT CHANGE HISTORY

Date (dd/mm/yyyy)	Person	Version	Reason
29/04/2016	QA team	0.1	Initial Creation
03/06/2016	QA team	0.2	Added Key performance indices in Appendix B
13/07/2016	QA team	0.3	Added new test cases for sending Bill without mobile app
17/08/2016	QA team	0.4	Added Setup Installation and Biller Prefix test cases
1/09/2016	QA team	0.5	Added Banner verification test case And Generic App test cases.
16/09/2016	QA team	0.6	Added Setup Un-installation test case
22/11/2016	QA team	0.7	Added App-NoApp switching and NoApp-App switching test cases
20/03/2017	QA team	0.8	Added test cases for android app, Ticket functionality.

# **1. INTRODUCTION**

## **1.1. PURPOSE AND SCOPE**

It describes all the necessary tests that need to be passed by product EBill. This is a reference document for engineering team and QA team.

## **1.2. OPEN POINTS**

- Do not initiate print before inserting the eBill USB device.

## **1.3. ASSUMPTIONS**

- Host machine is emulated as the billing terminal.
- The default installation directory "C:\Wdb Systems"
- The default configuration files location "C:\Wdb Systems\bin"

## **1.4. DEFINITIONS, ACRONYMS & ABBREVIATIONS**

The definitions, acronyms & abbreviations not found in this section are to be found in the referenced documents.

**Definitions:**

**Acronyms:**

**Abbreviations:**

## **1.5. REFERENCES**

## **2. TEST ENVIRONMENT**

This section describes about the necessary testing infrastructure details.

### **2.1. SYSTEM DETAILS**

The following are the system details

H/W

- Ebill USB device.

S/W

- Setup.exe
- UPI supported Bank Apps

### **2.2. TEST EQUIPMENT**

- Smart phone with internet browser (Google chrome recommended)
- The following mobile phones are being tested.
  - Android 4.4.2
  - Android 4.4.4
  - Android 5.1.1
  - Android 6.0
  - Windows phone
  - Ipad
- The following windows platforms are being tested.
  - Windows XP
  - Windows 7
  - Windows 10

### **2.3. SOFTWARE**

### **2.4. TOOLS**

- Wireless Sniffer

### **2.5. GENERAL TEST SETUP**

The following is the basic setup for testing product EBill.



*Figure 1: General Test Setup*

## **2.6. TEST METHODOLOGY**

The test cases are defined such a way to check the following system behaviour.

- Sanity check
- Feature/Functionality check
- Negative check

### 3. TEST SPECIFICATION

This section defines all the system test cases. All the tests use test set up mentioned in [Section 2.5](#).

#### 3.1. BASIC TESTS

This section lists all basic test cases.

##### 3.1.1. Setup Installation

###### TEST DESCRIPTION:

It is aimed to test whether the setup can be installed on the host machine.

###### TEST PROCEDURE:

1. Run the given setup.exe as Administrator to install the setup.exe.
2. Verify the index.html file path in the <installed directory>\bin\config file.
3. Verify the merchant template path in <installed directory>\bin\config file.

###### TEST PASS/FAIL CRITERIA:

Test case passes if

- The setup.exe extracts the files into the installed directory.
- A Printer gets installed on the host machine in the name of "Wdb Systems eBill".
- The printer properties are set correctly as per the specifications.

###### TEST MATRIX:

Test case Id	Parameters of variation	Remarks
TC_EBILL_SETUP_INSTALL_1_1	• Setup installation on Windows 7	
TC_EBILL_SETUP_INSTALL_1_2	• Setup installation on Windows XP	
TC_EBILL_SETUP_INSTALL_1_3	• Setup installation on Windows 10	

##### 3.1.2. Setup Un-Installation

###### TEST DESCRIPTION:

It is aimed to test whether the setup can be un-installed on the host machine.

###### TEST PROCEDURE:

1. Run uninstall.bat file as Administrator.

###### TEST PASS/FAIL CRITERIA:

Test case passes if

- "Wdb Systems eBill" printer gets deleted.
- Installed directory gets deleted.
- Ghost script driver gets un-installed.
- Ghost script Application gets un-installed.
- FTDI driver gets un-installed.
- Old path variable is restored.



**TEST MATRIX:**

Test case Id	Parameters of variation	Remarks
TC_EBILL_SETUP_UNINSTALL_1_1	<ul style="list-style-type: none"> <li>Setup Un-Installation on Windows 7</li> </ul>	
TC_EBILL_SETUP_UNINSTALL_1_2	<ul style="list-style-type: none"> <li>Setup Un-Installation on Windows 10</li> </ul>	
TC_EBILL_SETUP_UNINSTALL_1_3	<ul style="list-style-type: none"> <li>Setup Un-Installation on Windows XP</li> </ul>	

**3.1.3. Generic App Tests****TEST DESCRIPTION:**

It is aimed to test the Generic App related tests.

**Basic steps of Bill Transfer with Gen App**

1. Make sure that eBill USB stick connected to host machine.
2. Run ebill\_gen.exe from command prompt.
3. Fill the Generic App GUI with appropriate details.
4. Click on Send to transfer the bill.

**TEST PASS/FAIL CRITERIA:**

Test case passes if

- All the test cases of Generic App in Appendix C are executed without fail.

**TEST MATRIX:**

Refer [Appendix C](#) for the test matrix.

**3.1.4. Basic steps of Bill Transfer with NoApp**

1. Make sure that eBill USB device connected to host machine.
2. Print bill with Wdb Systems eBill printer.
3. Enter the customer mobile number and the bill amount in the Customer details window.
4. Click on Send, to transfer the bill from host machine to mobile phone.
5. Enable Wi-Fi on mobile phone.
6. Wi-Fi network is shown in the list of networks available with the provided phone number.
7. Join the Wi-Fi network by giving the password same as the phone number.
8. Open Google chrome web browser in the mobile phone, type [1.1.1.1](#) in address bar and click on enter.
9. Click on desired payment link in the mobile phone browser to pay the bill amount online.

**3.1.5. Basic steps of Bill Transfer with App**

1. Make sure that EBill USB stick connected to host machine.
2. Print bill with eBill printer.
3. Run eBill mobile application on mobile phone.
4. Enter the customer mobile number and the bill amount in the Customer details window.
5. Click on SendApp, to send the bill over mobile app.

### 3.1.6. Basic steps of Bill Transfer for Gen App with App

1. Make sure that EBill USB stick connected to host machine.
2. Run ebill\_gen.exe from command prompt.
3. Configure the generic app GUI with appropriate settings.
4. Click on SendApp, to send the bill over mobile app.

## 3.2. FUNCTIONALITY

The test cases in this section can be executed with generic app and printer app.

### 3.2.1. NoApp Functional Testing

#### 3.2.1.1. Bill Transfer Test 1

##### TEST DESCRIPTION:

It is aimed to test that the bill can be sent from host machine to mobile phone.

##### TEST PROCEDURE:

1. Perform **#Basic steps of Bill transfer with NoApp**.

##### TEST PASS/FAIL CRITERIA:

Test case passes if

- The mobile phone gets the notification "Download Complete".
- The received bill can be viewed from Downloads.
- The browser page displays the payment web links.
- The selected payment link redirects to corresponding payment gateway page.
- The bill payment is successful from the corresponding gateway.

##### TEST MATRIX:

Test case Id	Parameters of variation	Remarks
TC_EBILL_PRINTER_BILL_TRANSFER_1_1	• Type of bill is TEXT	
TC_EBILL_PRINTER_BILL_TRANSFER_1_2	• Type of bill is PDF	
TC_EBILL_PRINTER_BILL_TRANSFER_1_3	• Type of bill is JPG	
TC_EBILL_PRINTER_BILL_TRANSFER_1_4	• Type of bill is XLS	

#### 3.2.1.2. Bill Transfer Test 2

##### TEST DESCRIPTION:

It is aimed to test that the large bills can be sent from host machine to mobile phone with NoApp.

##### TEST PROCEDURE:

1. Perform **#Basic steps of Bill transfer with NoApp**.
2. Perform the data integrity check with received file.

##### TEST PASS/FAIL CRITERIA:

Test case passes if

- The mobile phone gets the notification "Download Complete" when sent over Browser.
- The received bill can be viewed from Downloads.

- The data integrity check is successful.
- The browser page displays the payment web links.
- The selected payment link redirects to corresponding payment gateway page.

#### TEST MATRIX:

Test case Id	Parameters of variation	Remarks
TC_EBILL_PRINTER_BILL_TRANSFER_2_1	• 3MB bill of PDF type	
TC_EBILL_PRINTER_BILL_TRANSFER_2_2	• 1MB bill of XLS type	
TC_EBILL_PRINTER_BILL_TRANSFER_2_3	• 3MB bill of JPG type	
TC_EBILL_PRINTER_BILL_TRANSFER_2_4	• 5MB bill of TEXT type	

#### 3.2.1.3. Bill Transfer Test 3

##### TEST DESCRIPTION:

It is aimed to test multiple host machines with one mobile phone. It mimics the scenario of multiple billers with single customer.

##### TEST PROCEDURE:

1. Perform **#Basic steps of Bill transfer with NoApp.**
2. Repeat the above steps with different host machine. For example: 3

##### TEST PASS/FAIL CRITERIA:

Test case passes if

- The mobile phone gets the notification "Download Complete" when sent over Browser.
- The received bill can be viewed from Downloads.
- The browser page displays the payment web links.
- The selected payment link redirects to corresponding payment gateway page.

#### TEST MATRIX:

Test case Id	Parameters of variation	Remarks
TC_EBILL_PRINTER_BILL_TRANSFER_3_1	• Wi-Fi-AP on	
TC_EBILL_PRINTER_BILL_TRANSFER_3_2	• Wi-Fi-AP off	
TC_EBILL_PRINTER_BILL_TRANSFER_3_3	• Broad Band on	
TC_EBILL_PRINTER_BILL_TRANSFER_3_4	• Broad Band off	
TC_EBILL_PRINTER_BILL_TRANSFER_3_5	• Wi-Fi-AP and Broad Band off	

#### 3.2.1.4. Bill Transfer Test 4

##### TEST DESCRIPTION:

It is aimed to test that the no. of Bills can be sent from single host machine to no. of mobile phones. It mimics the scenario of multiple customers with single biller.

##### TEST PROCEDURE:

1. Perform **#Basic steps of Bill transfer with NoApp.**
2. Repeat the above steps with different customers. For example: 7

##### TEST PASS/FAIL CRITERIA:

Test case passes if

- The mobile phone gets the notification “Download Complete” when sent over Browser.
- The received bill can be viewed from Downloads.
- The browser page displays the payment web links.
- The selected payment link redirects to corresponding payment gateway page.

#### TEST MATRIX:

Test case Id	Parameters of variation	Remarks
TC_EBILL_PRINTER_BILL_TRANSFER_4_1	<ul style="list-style-type: none"><li>• Customer 1 with Android 5.1.1 having Wi-Fi off</li><li>• Customer 2 with Android 4.4.2 having Broad Band on</li><li>• Customer 3 with Android 4.4.4 having Broad Band off</li><li>• Customer 4 with Android 6.0 having Wi-Fi on</li><li>• Customer 5 with Ipad</li></ul>	

#### 3.2.1.5. Bill Transfer Test 5

##### TEST DESCRIPTION:

It is aimed to test that the bill can be sent from host machine to mobile phone while the mobile phone is receiving notifications.

##### TEST PROCEDURE:

1. Perform **#Basic steps of Bill transfer with NoApp**.
2. Make sure that mobile is performing any another operation like answering call while bill transfer is going on.

##### TEST PASS/FAIL CRITERIA:

Test case passes if

- The mobile phone gets the notification “Download Complete” when sent over Browser.
- The received bill can be viewed from Downloads.
- The browser page displays the payment web links.
- The selected payment link redirects to corresponding payment gateway page.
- The bill payment is successful from the corresponding gateway.

#### TEST MATRIX:

Test case Id	Parameters of variation	Remarks
TC_EBILL_PRINTER_BILL_TRANSFERR_5_1	<ul style="list-style-type: none"><li>• Receiving Notifications</li><li>• Answering Call</li><li>• Dialling a Phone number</li></ul>	

#### 3.2.1.6. Bill Transfer Test 6

##### TEST DESCRIPTION:

It is aimed to test that the bill of bigger size can be sent repeatedly.

**TEST PROCEDURE:**

1. Perform **#Basic steps of Bill transfer with NoApp.**
2. Repeat the above step for 5 times to send the same bill every time.

**TEST PASS/FAIL CRITERIA:**

Test case passes if

- The mobile phone gets the notification "Download Complete" when sent over Browser.
- The received bill can be viewed from Downloads.
- The browser page displays the payment web links.
- The selected payment link redirects to corresponding payment gateway page.
- The bill payment is successful from the corresponding gateway.
- Data integrity check is successful.

**TEST MATRIX:**

Test case Id	Parameters of variation	Remarks
TC_EBILL_PRINTER_BILL_TRANSFER_6_1	• 1MB bill of PDF type	
TC_EBILL_PRINTER_BILL_TRANSFER_6_2	• 100KB of XLS type	
TC_EBILL_PRINTER_BILL_TRANSFER_6_3	• 3MB bill of JPG type	
TC_EBILL_PRINTER_BILL_TRANSFER_6_4	• 5MB bill of TEXT type	

**3.2.1.7. Bill Transfer Test 7****TEST DESCRIPTION:**

It is aimed to test that the bill transfer at different intervals happens successfully.

**TEST PROCEDURE:**

1. Perform **#Basic steps of Bill transfer with NoApp.**
2. Repeat the above step after certain duration.

**TEST PASS/FAIL CRITERIA:**

Test case passes if

- The mobile phone gets the notification "Download Complete" when sent over Browser.
- The received bill can be viewed from Downloads.
- The browser page displays the payment web links.
- The selected payment link redirects to corresponding payment gateway page.
- The bill payment is successful from the corresponding gateway.

**TEST MATRIX:**

Test case Id	Parameters of variation	Remarks
TC_EBILL_PRINTER_DIFFERENT_INTERVALS_1_1	• 15minutes • 30minutes • 1hour	

**3.2.1.8. All COM ports****TEST DESCRIPTION:**

It is aimed to test the eBill USB device with different COM ports.

**TEST PROCEDURE:**

1. Perform #Basic steps of Bill transfer with App/ NoApp.
2. Change the COM port from device manager.
3. Repeat step1.

**TEST PASS/FAIL CRITERIA:**

Test case passes if

**APP:**

- The mobile phone gets the notification "Download Complete" with all the COM ports.
- The received bill can be viewed from Downloads.
- The browser page displays the payment web links.
- The selected payment link redirects to corresponding payment gateway page.
- The bill payment is successful from the corresponding gateway.

**NoAPP:**

- The mobile phone gets the notification "Bill Received" when sent over mobile app.
- The received bill can be viewed from "SHOW" in mobile app.

**TEST MATRIX:**

Test case Id	Parameters of variation	Remarks
TC_EBILL_PRINTER_COMPOR T_1_1	COM1	
TC_EBILL_PRINTER_COMPOR T_1_2	COM30	
TC_EBILL_PRINTER_COMPOR T_1_3	COM110	

**3.2.1.9. LED State Indication****TEST DESCRIPTION:**

It is aimed to test the eBill USB device LED state after turning off host machine.

**TEST PROCEDURE:**

1. Observe the LED state of the eBill USB device.
2. Turn off the host machine.
3. Observe the state of LED on the eBill USB device.

**TEST PASS/FAIL CRITERIA:**

Test case passes if

- The LED's are off when the host machine is turned off.

**TEST MATRIX:**

Test case Id	Parameters of variation	Remarks
TC_EBILL_PRINTER_LED_STATE_1_1		

**3.2.1.10. Range Test****TEST DESCRIPTION:**

It is aimed to test the eBill USB device coverage area.

**TEST PROCEDURE:**

1. Perform **#Basic steps of Bill transfer with NoApp**.
2. Observe Wi-Fi signal range that the eBill device covered.

**TEST PASS/FAIL CRITERIA:**

Test case passes if

- The mobile phone gets the notification "Download Complete" when sent over Browser.
- The received bill can be viewed from Downloads.
- The browser page displays the payment web links.
- The selected payment link redirects to corresponding payment gateway page.
- The bill payment is successful from the corresponding gateway.

**TEST MATRIX:**

Test case Id	Parameters of variation	Remarks
TC_EBILL_PRINTER_Wi-Fi_COVERAGE_1_1		

**3.2.1.11. Shopper Prefix Verification**

**TEST DESCRIPTION:**

It is aimed to test that the respective biller prefix is added to the bill name.

**TEST PROCEDURE:**

1. Perform **#Basic steps of Bill transfer with NoApp**.
2. Observe the shopper prefix.
3. Change the shopper prefix in config file.
4. Repeat step1.

**TEST PASS/FAIL CRITERIA:**

Test case passes if

- Mobile phone connects to the Wi-Fi network started with customer phone number.
- Bill file starts downloading in mobile phone.
- The downloaded file name starts with shopper prefix (old).
- Config file updated successfully.
- Second bill file starts downloading in mobile phone.
- The downloaded file name starts with shopper prefix (new/ updated).

**TEST MATRIX:**

Test case Id	Parameters of variation	Remarks
TC_EBILL_PRINTER_SHOPPER_PREFIX_VERIFY_1_1		
TC_EBILL_PRINTER_VARY_SHOPPER_PREFIX_1_1		

### 3.2.1.12. Merchant template Verification

#### TEST DESCRIPTION:

It is aimed to test that bill can be sent from host machine to mobile phone with the merchant Stemplate.

#### TEST PROCEDURE:

1. Perform **#Basic steps of Bill transfer with NoApp**.
2. Observe the merchant template in the received bill.
3. Vary the merchant template in config file.
4. Repeat step1.

#### TEST PASS/FAIL CRITERIA:

Test case passes if

- The mobile phone gets the notification "Download Complete" when sent over Browser.
- The received bill can be viewed from Downloads.
- The received bill contains the merchant template.
- The received bill perfectly fits within the merchant template.
- The browser page displays the payment web links.
- The selected payment link redirects to corresponding payment gateway page.
- New Merchant template is added successfully.
- The latest downloaded bill contains the new merchant template.

#### TEST MATRIX:

Test case Id	Parameters of variation	Remarks
TC_EBILL_PRINTER_MERCHANT_TEMPLATE_VERIFY_1_1	• TXT type	
TC_EBILL_PRINTER_VARY_MERCHANT_TEMPLATE_1_1	• TXT type	
TC_EBILL_PRINTER_VARY_MERCHANT_TEMPLATE_1_2	• JPG type	
TC_EBILL_PRINTER_VARY_MERCHANT_TEMPLATE_1_3	• PDF type	
TC_EBILL_PRINTER_VARY_MERCHANT_TEMPLATE_1_4	• XLS type	

### 3.2.2 App Functional Testing

#### 3.2.2.1. Bill Transfer Test 1

#### TEST DESCRIPTION:

It is aimed to test that the bill can be sent from host machine to mobile phone.

#### TEST PROCEDURE:

1. Perform **#Basic steps of Bill transfer with App**.

#### TEST PASS/FAIL CRITERIA:

Test case passes if

- The mobile phone gets the notification "Bill Received" when sent over mobile app.
- The received bill can be viewed from "SHOW" in mobile app under BILLS section.
- The first page of the received bill displays the payment web link.
- The selected payment link redirects to corresponding payment gateway page.



**TEST MATRIX:**

Test case Id	Parameters of variation	Remarks
TC_EBILL_PRINTER_APP_TRANSFER_1_1	• Type of bill is TEXT	
TC_EBILL_PRINTER_APP_TRANSFER_1_2	• Type of bill is PDF	
TC_EBILL_PRINTER_APP_TRANSFER_1_3	• Type of bill is JPG	
TC_EBILL_PRINTER_APP_TRANSFER_1_4	• Type of bill is XLS	

**3.2.2.2. Bill Transfer Test 2****TEST DESCRIPTION:**

It is aimed to test that the bill can be sent from host machine to mobile phone with file type as Ticket.

**TEST PROCEDURE:**

1. Change the file type to Ticket from bill in config file
2. Perform **#Basic steps of Bill transfer with App.**

**TEST PASS/FAIL CRITERIA:**

Test case passes if

- The mobile phone gets the notification “Bill Received” when sent over mobile app.
- The received bill can be viewed from “SHOW” in mobile app under TICKET section.
- The first page of the received bill displays the payment web link.
- The selected payment link redirects to corresponding payment gateway page.

**TEST MATRIX:**

Test case Id	Parameters of variation	Remarks
TC_EBILL_PRINTER_APP_TICKET_TRANSFER_1_1	• Type of bill is TEXT	
TC_EBILL_PRINTER_APP_TICKET_TRANSFER_1_2	• Type of bill is PDF	
TC_EBILL_PRINTER_APP_TICKET_TRANSFER_1_3	• Type of bill is JPG	
TC_EBILL_PRINTER_APP_TICKET_TRANSFER_1_4	• Type of bill is XLS	

**3.2.2.3. Bill Transfer Test 3****TEST DESCRIPTION:**

It is aimed to test that the bill can be sent from host machine to mobile phone with Gen App.

**TEST PROCEDURE:**

1. Make sure that eBill USB stick connected to host machine.
2. Run ebill\_gen.exe from command prompt.
3. Fill the Generic App GUI with appropriate details.
4. Click on SendApp, to send the bill over mobile app.

**TEST PASS/FAIL CRITERIA:**

Test case passes if

- The mobile phone gets the notification “Bill Received” when sent over mobile app.
- The received bill can be viewed from “SHOW” in mobile app under ticket section.

- The first page of the received bill displays the payment web link.
- The selected payment link redirects to corresponding payment gateway page.

#### TEST MATRIX:

Test case Id	Parameters of variation	Remarks
TC_EBILL_GENAPP_BILL_TRANSFER_1_1	• Type of bill is TEXT	
TC_EBILL_GENAPP_BILL_TRANSFER_1_2	• Type of bill is PDF	
TC_EBILL_GENAPP_BILL_TRANSFER_1_3	• Type of bill is JPG	
TC_EBILL_GENAPP_BILL_TRANSFER_1_4	• Type of bill is XLS	

#### 3.2.2.4. Bill Transfer Test 4

##### TEST DESCRIPTION:

It is aimed to test that the large bills can be sent from host machine to mobile phone.

##### TEST PROCEDURE:

1. Perform **#Basic steps of Bill transfer with App.**
2. Perform the data integrity check with received file.

##### TEST PASS/FAIL CRITERIA:

Test case passes if

- The mobile phone gets the notification “Bill Received” when sent over mobile app.
- The received bill can be viewed from “SHOW” in mobile app under BILLS section.
- The data integrity check is successful.
- The first page of the received bill displays the payment web link.
- The selected payment link redirects to corresponding payment gateway page.

#### TEST MATRIX:

Test case Id	Parameters of variation	Remarks
TC_EBILL_PRINTER_APP_TRANSFER_2_1	• 3MB bill of PDF type	
TC_EBILL_PRINTER_APP_TRANSFER_2_2	• 1MB bill of XLS type	
TC_EBILL_PRINTER_APP_TRANSFER_2_3	• 3MB bill of JPG type	
TC_EBILL_PRINTER_APP_TRANSFER_2_4	• 5MB bill of TEXT type	

#### 3.2.2.5. Bill Transfer Test 5

##### TEST DESCRIPTION:

It is aimed to test that the large bills can be sent from host machine to mobile phone with file type as Ticket.

##### TEST PROCEDURE:

1. Change the file type to Ticket from bill in config file.
2. Perform **#Basic steps of Bill transfer with App.**
3. Perform the data integrity check with received file.

##### TEST PASS/FAIL CRITERIA:

Test case passes if

- The mobile phone gets the notification “Bill Received” when sent over mobile app.
- The received bill can be viewed from “SHOW” in mobile app under TICKET section.
- The data integrity check is successful.

- The first page of the received bill displays the payment web link.
- The selected payment link redirects to corresponding payment gateway page.

#### TEST MATRIX:

Test case Id	Parameters of variation	Remarks
TC_EBILL_PRINTER_APP_TRANSFER_2_1	• 3MB bill of PDF type	
TC_EBILL_PRINTER_APP_TRANSFER_2_2	• 1MB bill of XLS type	
TC_EBILL_PRINTER_APP_TRANSFER_2_3	• 3MB bill of JPG type	
TC_EBILL_PRINTER_APP_TRANSFER_2_4	• 5MB bill of TEXT type	

#### 3.2.2.6. Bill Transfer Test 6

##### TEST DESCRIPTION:

It is aimed to test that the large bills can be sent from host machine to mobile phone with GenApp.

##### TEST PROCEDURE:

1. Make sure that eBill USB stick connected to host machine.
2. Run ebill\_gen.exe from command prompt.
3. Fill the Generic App GUI with appropriate details.
4. Click on SendApp, to send the bill over mobile app.

##### TEST PASS/FAIL CRITERIA:

Test case passes if

- The mobile phone gets the notification “Bill Received” when sent over mobile app.
- The received bill can be viewed from “SHOW” in mobile app under BILLS section.
- The data integrity check is successful.
- The first page of the received bill displays the payment web link.
- The selected payment link redirects to corresponding payment gateway page.

#### TEST MATRIX:

Test case Id	Parameters of variation	Remarks
TC_EBILL_GENAPP_BILL_TRANSFER_2_1	• 3MB bill of PDF type	
TC_EBILL_GENAPP_BILL_TRANSFER_2_2	• 1MB bill of XLS type	
TC_EBILL_GENAPP_BILL_TRANSFER_2_3	• 3MB bill of JPG type	
TC_EBILL_GENAPP_BILL_TRANSFER_2_4	• 5MB bill of TEXT type	

#### 3.2.2.7. Bill Transfer Test 7

##### TEST DESCRIPTION:

It is aimed to test multiple host machines with one mobile phone. It mimics the scenario of multiple billers with single customer.

##### TEST PROCEDURE:

1. Perform # **Basic steps of Bill transfer with App.**
2. Repeat the above steps with different host machine. For example: 3

##### TEST PASS/FAIL CRITERIA:

Test case passes if

- The mobile phone gets the notification “Bill Received” when sent over mobile app.
- The received bill can be viewed from “SHOW” in mobile app under BILLS section.
- The first page of the received bill displays the payment web link.
- The selected payment link redirects to corresponding payment gateway page.

#### TEST MATRIX:

Test case Id	Parameters of variation	Remarks
TC_EBILL_PRINTER_APP_TRANSFER_3_1	• Wi-Fi-AP on	
TC_EBILL_PRINTER_APP_TRANSFER_3_2	• Wi-Fi-AP off	
TC_EBILL_PRINTER_APP_TRANSFER_3_3	• Broad Band on	
TC_EBILL_PRINTER_APP_TRANSFER_3_4	• Broad Band off	
TC_EBILL_PRINTER_APP_TRANSFER_3_5	• Wi-Fi-AP and Broad Band off	

#### 3.2.2.8. Bill Transfer Test 8

##### TEST DESCRIPTION:

It is aimed to test multiple host machines with one mobile phone. It mimics the scenario of multiple billers with single customer with GenApp.

##### TEST PROCEDURE:

1. Make sure that eBill USB stick connected to host machine.
2. Run ebill\_gen.exe from command prompt.
3. Fill the Generic App GUI with appropriate details.
4. Click on SendApp, to send the bill over mobile app.
5. Repeat the above steps with different host machine. For example: 3

##### TEST PASS/FAIL CRITERIA:

Test case passes if

- The mobile phone gets the notification “Bill Received” when sent over mobile app.
- The received bill can be viewed from “SHOW” in mobile app.
- The data integrity check is successful.
- The first page of the received bill displays the payment web link.
- The selected payment link redirects to corresponding payment gateway page.

#### TEST MATRIX:

Test case Id	Parameters of variation	Remarks
TC_EBILL_GENAPP_BILL_TRANSFER_3_1	• Wi-Fi-AP on	
TC_EBILL_GENAPP_BILL_TRANSFER_3_2	• Wi-Fi-AP off	
TC_EBILL_GENAPP_BILL_TRANSFER_3_3	• Broad Band on	
TC_EBILL_GENAPP_BILL_TRANSFER_3_4	• Broad Band off	
TC_EBILL_GENAPP_BILL_TRANSFER_3_5	• Wi-Fi-AP and Broad Band off	

#### 3.2.2.9. Bill Transfer Test 9

##### TEST DESCRIPTION:

It is aimed to test that the no. of Bills can be sent from single host machine to no. of mobile phones. It mimics the scenario of multiple customers with single biller.

##### TEST PROCEDURE:

1. Perform **#Basic steps of Bill transfer with App.**
2. Repeat the above steps with different customers. For example: 7

#### TEST PASS/FAIL CRITERIA:

Test case passes if

- The mobile phone gets the notification “Bill Received” when sent over mobile app.
- The received bill can be viewed from “SHOW” in mobile app under BILLS section.
- The first page of the received bill displays the payment web link.
- The selected payment link redirects to corresponding payment gateway page.

#### TEST MATRIX:

Test case Id	Parameters of variation	Remarks
TC_EBILL_PRINTER_APP_TRANSFER_4_1	<ul style="list-style-type: none"> <li>• Customer 1 with Android 5.1.1 having Wi-Fi off</li> <li>• Customer 2 with Android 4.4.2 having Broad Band on</li> <li>• Customer 3 with Android 4.4.4 having Broad Band off</li> <li>• Customer 4 with Android 6.0 having Wi-Fi on</li> <li>• Customer 5 with Ipad</li> </ul>	

#### 3.2.2.10. Bill Transfer Test 10

#### TEST DESCRIPTION:

It is aimed to test that the no. of Bills can be sent from single host machine to no. of mobile phones with GenApp. It mimics the scenario of multiple customers with single biller.

#### TEST PROCEDURE:

1. Make sure that eBill USB stick connected to host machine.
2. Run ebill\_gen.exe from command prompt.
3. Fill the Generic App GUI with appropriate details.
4. Click on SendApp, to send the bill over mobile app.
5. Repeat the above steps with different customers. For example: 7

#### TEST PASS/FAIL CRITERIA:

Test case passes if

- The mobile phone gets the notification “Bill Received” when sent over mobile app.
- The received bill can be viewed from “SHOW” in mobile app.
- The first page of the received bill displays the payment web link.
- The selected payment link redirects to corresponding payment gateway page.

#### TEST MATRIX:

Test case Id	Parameters of variation	Remarks
TC_EBILL_GENAPP_BILL_TRANSFER_4_1	<ul style="list-style-type: none"> <li>• Customer 1 with Android 5.1.1 having Wi-Fi off</li> <li>• Customer 2 with Android 4.4.2 having Broad Band on</li> <li>• Customer 3 with Android 4.4.4 having Broad Band off</li> <li>• Customer 4 with Android 6.0 having Wi-Fi on</li> <li>• Customer 5 with Ipad</li> </ul>	

### 3.2.2.11. Bill Transfer Test 11

#### TEST DESCRIPTION:

It is aimed to test that the bill can be sent from host machine to mobile phone while the mobile phone is receiving notifications.

#### TEST PROCEDURE:

1. Perform **#Basic steps of Bill transfer with App.**
2. Make sure that mobile is performing any another operation like answering call while bill transfer is going on.

#### TEST PASS/FAIL CRITERIA:

Test case passes if

- The mobile phone gets the notification "Bill Received" when sent over mobile app.
- The received bill can be viewed from "SHOW" in mobile app.
- The first page of the received bill displays the payment web link.
- The selected payment link redirects to corresponding payment gateway page.

#### TEST MATRIX:

Test case Id	Parameters of variation	Remarks
TC_EBILL_PRINTER_APP_TRANSFER_5_1	<ul style="list-style-type: none"><li>• Receiving Notifications</li><li>• Answering Call</li><li>• Dialling a Phone number</li></ul>	

### 3.2.2.12. Bill Transfer Test 12

#### TEST DESCRIPTION:

It is aimed to test that the bill can be sent from host machine to mobile phone while the mobile phone is receiving notifications with GenApp.

#### TEST PROCEDURE:

1. Make sure that eBill USB stick connected to host machine.
2. Run ebill\_gen.exe from command prompt.
3. Fill the Generic App GUI with appropriate details.
4. Click on SendApp, to send the bill over mobile app.
5. Make sure that mobile is performing any another operation like answering call while bill transfer is going on.

#### TEST PASS/FAIL CRITERIA:

Test case passes if

- The mobile phone gets the notification "Bill Received" when sent over mobile app.
- The received bill can be viewed from "SHOW" in mobile app.
- The first page of the received bill displays the payment web link.
- The selected payment link redirects to corresponding payment gateway page.

#### TEST MATRIX:

Test case Id	Parameters of variation	Remarks
TC_EBILL_GENAPP_BILL_TRANSFER_5_1	<ul style="list-style-type: none"><li>• Receiving Notifications</li><li>• Answering Call</li><li>• Dialling a Phone number</li></ul>	

### 3.2.2.13. Bill Transfer Test 13

#### TEST DESCRIPTION:

It is aimed to test that the bill of bigger size can be sent repeatedly.

#### TEST PROCEDURE:

1. Perform **#Basic steps of Bill transfer with App.**
2. Repeat the above step for 5 times to send the same bill every time.

#### TEST PASS/FAIL CRITERIA:

Test case passes if

- The mobile phone gets the notification "Bill Received" when sent over mobile app.
- The received bill can be viewed from "SHOW" in mobile app under BILLS section.
- The first page of the received bill displays the payment web link.
- The selected payment link redirects to corresponding payment gateway page.

#### TEST MATRIX:

Test case Id	Parameters of variation	Remarks
TC_EBILL_PRINTER_APP_TRANSFER_6_1	• 1MB bill of PDF type	
TC_EBILL_PRINTER_APP_TRANSFER_6_2	• 3MB bill of JPG type	
TC_EBILL_PRINTER_APP_TRANSFER_6_3	• 5MB bill of TEXT type	

### 3.2.2.14. Bill Transfer Test 14

#### TEST DESCRIPTION:

It is aimed to test that the bill of bigger size can be sent repeatedly with file type as Ticket.

#### TEST PROCEDURE:

1. Change the file type to Ticket from bill in config file.
2. Perform **#Basic steps of Bill transfer with App.**
3. Repeat the above step for 5 times to send the same bill every time.

#### TEST PASS/FAIL CRITERIA:

Test case passes if

- The mobile phone gets the notification "Bill Received" when sent over mobile app.
- The received bill can be viewed from "SHOW" in mobile app under TICKETS section
- The first page of the received bill displays the payment web link.
- The selected payment link redirects to corresponding payment gateway page.

#### TEST MATRIX:

Test case Id	Parameters of variation	Remarks
TC_EBILL_PRINTER_APP_TICKET_TRANSFER_1_1	• 1MB bill of PDF type	
TC_EBILL_PRINTER_APP_TICKET_TRANSFER_1_2	• 3MB bill of JPG type	
TC_EBILL_PRINTER_APP_TICKET_TRANSFER_1_3	• 5MB bill of TEXT type	

### 3.2.2.15. Bill Transfer Test 15

#### TEST DESCRIPTION:

It is aimed to test that the bill of bigger size can be sent repeatedly with GenApp.

**TEST PROCEDURE:**

1. Make sure that eBill USB stick connected to host machine.
2. Run ebill\_gen.exe from command prompt.
3. Fill the Generic App GUI with appropriate details.
4. Click on SendApp, to send the bill over mobile app.
5. Repeat the above step for 5 times to send the same bill every time.

**TEST PASS/FAIL CRITERIA:**

Test case passes if

- The mobile phone gets the notification “Bill Received” when sent over mobile app.
- The received bill can be viewed from “SHOW” in mobile app.
- The first page of the received bill displays the payment web link.
- The selected payment link redirects to corresponding payment gateway page.

**TEST MATRIX:**

Test case Id	Parameters of variation	Remarks
TC_EBILL_GENAPP_BILL_TRANSFER_6_1	• 1MB bill of PDF type	
TC_EBILL_GENAPP_BILL_TRANSFER_6_2	• 100KB of XLS type	
TC_EBILL_GENAPP_BILL_TRANSFER_6_3	• 3MB bill of JPG type	
TC_EBILL_GENAPP_BILL_TRANSFER_6_4	• 5MB bill of TEXT type	

**3.2.2.16. Bill Transfer Test 16**

**TEST DESCRIPTION:**

It is aimed to test that the bill transfer at different intervals happens successfully.

**TEST PROCEDURE:**

1. Perform **#Basic steps of Bill transfer with App.**
2. Repeat the above step after certain duration.

**TEST PASS/FAIL CRITERIA:**

Test case passes if

- The mobile phone gets the notification “Bill Received” when sent over mobile app.
- The received bill can be viewed from “SHOW” in mobile app under BILLS section.
- The first page of the received bill displays the payment web link.
- The selected payment link redirects to corresponding payment gateway page.

**TEST MATRIX:**

Test case Id	Parameters of variation	Remarks
TC_EBILL_PRINTER_APP_DIFFERENT_INTERV ALS_1_1	• 15minutes • 30minutes • 1hour	

**3.2.2.17. Bill Transfer Test 17**

**TEST DESCRIPTION:**

It is aimed to test that the bill transfer at different intervals happens successfully with GenApp.

**TEST PROCEDURE:**

1. Make sure that eBill USB stick connected to host machine.



2. Run ebill\_gen.exe from command prompt.
3. Fill the Generic App GUI with appropriate details.
4. Click on SendApp, to send the bill over mobile app. Repeat the above step after certain duration.

#### TEST PASS/FAIL CRITERIA:

Test case passes if

- The mobile phone gets the notification "Bill Received" when sent over mobile app.
- The received bill can be viewed from "SHOW" in mobile app.
- The first page of the received bill displays the payment web link.
- The selected payment link redirects to corresponding payment gateway page.

#### TEST MATRIX:

Test case Id	Parameters of variation	Remarks
TC_EBILL_GENAPP_DIFFERENT_INTERVALS_1_1	<ul style="list-style-type: none"> <li>• 15minutes</li> <li>• 30minutes</li> <li>• 1hour</li> </ul>	

#### 3.2.2.18. Bill Deletion

##### TEST DESCRIPTION:

It is aimed to test that the bill can be deleted from mobile app.

##### TEST PROCEDURE:

1. Perform **#Basic steps of Bill transfer with App.**
2. Delete the received bill (long press on the bill, gives options).

#### TEST PASS/FAIL CRITERIA:

Test case passes if

- The mobile phone displays a notification "Bill Deleted".

#### TEST MATRIX:

Test case Id	Parameters of variation	Remarks
TC_EBILL_PRINTER_APP_DELETE_1_1	<ul style="list-style-type: none"> <li>• Delete any bill</li> </ul>	

#### 3.2.2.19. Ticket Deletion

##### TEST DESCRIPTION:

It is aimed to test that the bill can be deleted from mobile app with file type as Ticket.

##### TEST PROCEDURE:

1. Perform **#Basic steps of Bill transfer with App.**
2. Delete the received bill (long press on the bill, gives options).

#### TEST PASS/FAIL CRITERIA:

Test case passes if

- The mobile phone displays a notification "Bill Deleted".

#### TEST MATRIX:

Test case Id	Parameters of variation	Remarks
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**3.2.2.20. Bill Sharing****TEST DESCRIPTION:**

It is aimed to test that the received bill can be shared from the mobile phone to other mobile phone/laptop.

**TEST PROCEDURE:**

1. Perform # **Basic steps of Bill Transfer with App.**
2. Share the received bill through the following applications.

**TEST PASS/FAIL CRITERIA:**

Test case passes if

- The received bill can be shared to any other device over Bluetooth, Gmail, E-mail and Shareit.

**TEST MATRIX:**

Test case Id	Parameters of variation	Remarks
TC_EBILL_PRINTER_APP_SHARE_1_1	<ul style="list-style-type: none"> <li>• Over Bluetooth</li> <li>• Over Gmail</li> <li>• Over E-mail</li> <li>• Over SHAREit</li> </ul>	SHAREit is an application used for file transferring

**3.2.2.21. Ticket Sharing****TEST DESCRIPTION:**

It is aimed to test that the received bill does not shows share option to user.

**TEST PROCEDURE:**

1. Perform #**Basic steps of Bill transfer with App.**
2. Try to share the received bill through the following applications.

**TEST PASS/FAIL CRITERIA:**

Test case passes if

- The received ticket do not shows share option to user.

**TEST MATRIX:**

Test case Id	Parameters of variation	Remarks
TC_EBILL_PRINTER_APP_TICKET_SHARE_1_1		

**3.2.2.22. All COM ports****TEST DESCRIPTION:**

It is aimed to test the eBill USB device with different COM ports.

**TEST PROCEDURE:**

1. Perform #**Basic steps of Bill transfer with App.**
2. Change the COM port from device manager.
3. Repeat step1.

**TEST PASS/FAIL CRITERIA:**

Test case passes if

- The mobile phone gets the notification “Bill Received” when sent over mobile app.
- The received bill can be viewed from “SHOW” in mobile app.

**TEST MATRIX:**

Test case Id	Parameters of variation	Remarks
TC_EBILL_PRINTER_APP_COM PORT_1_1		

**3.2.2.23. LED State Indication****TEST DESCRIPTION:**

It is aimed to test the eBill USB device LED state after turning off host machine.

**TEST PROCEDURE:**

1. Observe the LED state of the eBill USB device.
2. Turn off the host machine.
3. Observe the state of LED on the eBill USB device.

**TEST PASS/FAIL CRITERIA:**

Test case passes if

- The LED's are off when the host machine is turned off.

**TEST MATRIX:**

Test case Id	Parameters of variation	Remarks
TC_EBILL_PRINTER_APP_LED_STAT E_1_1		

**3.2.2.24. Range Test****TEST DESCRIPTION:**

It is aimed to test the eBill USB device coverage area.

**TEST PROCEDURE:**

1. Perform **#Basic steps of Bill transfer with App.**
2. Observe Wi-Fi signal range that the eBill device covered.

**TEST PASS/FAIL CRITERIA:**

Test case passes if

- The mobile phone gets the notification “Bill Received” when sent over mobile app.
- The received bill can be viewed from “SHOW” in mobile app.

**TEST MATRIX:**

Test case Id	Parameters of variation	Remarks
TC_EBILL_PRINTER_APP_Wi- Fi_COVERAGE_1_1		

**3.2.2.25. Shopper prefix Verification****TEST DESCRIPTION:**

It is aimed to test that the respective biller prefix is added to the bill name.

**TEST PROCEDURE:**

1. Perform #Basic steps of Bill transfer with App.
2. Observe the shopper prefix.
3. Change the shopper prefix in config file.
4. Repeat step1.

**TEST PASS/FAIL CRITERIA:**

Test case passes if

- The mobile phone gets the notification "Bill Received" when sent over mobile app.
- Bill file starts downloading in mobile phone.
- The downloaded file name starts with shopper prefix (old).
- Config file updated successfully.
- Second bill file starts downloading in mobile phone.
- The downloaded file name starts with shopper prefix (new/ updated).

**TEST MATRIX:**

Test case Id	Parameters of variation	Remarks
TC_EBILL_PRINTER_APP_SHOPPER_PREFIX_VERIFY_1_1		
TC_EBILL_PRINTER_APP_VARY_SHOPPER_PREFIX_1_1		

**3.2.2.26. Merchant template Verification****TEST DESCRIPTION:**

It is aimed to test that bill can be sent from host machine to mobile phone with the merchants template.

**TEST PROCEDURE:**

1. Perform #Basic steps of Bill transfer with App.
2. Observe the merchant template in the received bill.
3. Vary the merchant template in config file.
4. Repeat step1.

**TEST PASS/FAIL CRITERIA:**

Test case passes if

- The mobile phone gets the notification "Bill Received" when sent over mobile app.
- The received bill contains the merchant template.
- The received bill perfectly fits within the merchant template.
- New Merchant template is added successfully.
- The latest downloaded bill contains the new merchant template.

**TEST MATRIX:**

Test case Id	Parameters of variation	Remarks
TC_EBILL_PRINTER_APP_MERCHANT_TEMPLATE_VERIFY_1_1	• TXT type	
TC_EBILL_PRINTER_APP_VARY_MERCHANT_TEMPLATE_1_1	• TXT type	
TC_EBILL_PRINTER_APP_VARY_MERCHANT_TEMPLATE_1_2	• JPG type	
TC_EBILL_PRINTER_APP_VARY_MERCHANT_TEMPLATE_1_3	• PDF type	

### 3.3. NEGATIVE TESTS

#### 3.3.1. Network Disruption Test 1

##### TEST DESCRIPTION:

It is aimed to test the eBill USB device when there is network disruption.

##### TEST PROCEDURE:

1. Make sure that eBill USB stick connected to host machine.
2. Print bill with Wdb Systems eBill printer.
3. Perform **#Basic steps of Bill transfer with NoApp.**
4. Disrupt the network while the bill is transferring.

##### TEST PASS/FAIL CRITERIA:

Test case passes if

- The PC-app displays a notification window "Network Error, Try Again" in few seconds.

##### TEST MATRIX:

Test case Id	Parameters of variation	Remarks
TC_EBILL_PRINTER_NETWORK_DISRUPT_1_1	• Turn ON Wi-Fi AP	
TC_EBILL_PRINTER_NETWORK_DISRUPT_1_2	• Turn OFF Wi-Fi	

#### 3.3.2. Network Disruption Test 2

##### TEST DESCRIPTION:

It is aimed to test the eBill USB device when there is network disruption.

##### TEST PROCEDURE:

1. Make sure that eBill USB stick connected to host machine.
2. Print bill with Wdb Systems eBill printer.
3. Perform **#Basic steps of Bill transfer with App.**
4. Disrupt the network while the bill is transferring.

##### TEST PASS/FAIL CRITERIA:

Test case passes if

- The PC-app displays a notification window "Network Error, Try Again" in few seconds.

##### TEST MATRIX:

Test case Id	Parameters of variation	Remarks
TC_EBILL_PRINTER_APP_NETWORK_DISRUPT_1_1	• Turn ON Wi-Fi AP	
TC_EBILL_PRINTER_APP_NETWORK_DISRUPT_1_2	• Turn OFF Wi-Fi	

#### 3.3.3. Network Disruption Test 3

**TEST DESCRIPTION:**

It is aimed to test the eBill USB device when there is network disruption with Gen app.

**TEST PROCEDURE:**

1. Make sure that eBill USB stick connected to host machine.
2. Run ebill\_gen.exe from command prompt.
3. Fill the Generic App GUI with appropriate details.
4. Click on SendApp, to send the bill over mobile app.
5. Disrupt the network while the bill is transferring.

**TEST PASS/FAIL CRITERIA:**

Test case passes if

- The PC-app displays a notification window "Network Error, Try Again" in few seconds.

**TEST MATRIX:**

Test case Id	Parameters of variation	Remarks
TC_EBILL_GENAPP_NETWORK_DISRUPT_1_1	<ul style="list-style-type: none"> <li>• Turn ON Wi-Fi AP</li> </ul>	
TC_EBILL_GENAPP_NETWORK_DISRUPT_1_2	<ul style="list-style-type: none"> <li>• Turn OFF Wi-Fi</li> </ul>	

**3.3.4. Switching from NoApp transfer to App transfer****TEST DESCRIPTION:**

It is aimed to test the eBill USB device switching to App transfer on the failure of NoApp transfer.

**TEST PROCEDURE:**

1. Make sure that eBill USB stick connected to host machine.
2. Print bill with Wdb Systems eBill printer.
3. Perform **#Basic steps of Bill transfer with NoApp**.
4. Disrupt the network while the bill is transferring.
5. Change the settings of IS\_NO\_APP from TRUE to FALSE in config file.
6. Perform **#Basic steps of Bill transfer with App**.

**TEST PASS/FAIL CRITERIA:**

Test case passes if

- The mobile phone gets the notification "Download Complete" when sent over Browser.
- The received bill can be viewed from Downloads.
- The browser page displays the payment web links.
- The selected payment link redirects to corresponding payment gateway page.

**TEST MATRIX:**

Test case Id	Parameters of variation	Remarks
TC_EBILL_PRINTER_NOAPP_NWDISRUPT_APP_TRANSFER_1_1		

**3.3.5. Switching from App transfer to NoApp transfer****TEST DESCRIPTION:**

It is aimed to test the eBill USB device switching to NoApp transfer on the failure of App transfer.

**TEST PROCEDURE:**

1. Make sure that eBill USB stick connected to host machine.
2. Print bill with Wdb Systems eBill printer.
3. Perform **#Basic steps of Bill transfer with App.**
4. Disrupt the network while the bill is transferring.
5. Change the settings of IS\_NO\_APP from FALSE to TRUE in config file
6. Perform **#Basic steps of Bill transfer with NoApp.**

**TEST PASS/FAIL CRITERIA:**

Test case passes if

- The mobile phone gets the notification "Bill Received" when sent over mobile app.
- The received bill can be viewed from "SHOW" in mobile app under BILLS section.
- The first page of the received bill displays the payment web link.
- The selected payment link redirects to corresponding payment gateway page.

**TEST MATRIX:**

Test case Id	Parameters of variation	Remarks
TC_EBILL_PRINTER_APP_NWDISRUPT_NOAPP_TRANSFER_1_1		

**3.4. MISCELLANEOUS CASES****3.4.1. Payment Gateway Link Verification Test 1****TEST DESCRIPTION:**

It is aimed to test that bill can be sent from host machine to mobile phone with the payment gateway link.

**TEST PROCEDURE:**

1. Perform **#Basic steps of Bill transfer with NoApp.**
2. Observe the payment link in the html page.
3. Try to pay using payment link.

**TEST PASS/FAIL CRITERIA:**

Test case passes if

- The mobile phone gets the notification "Download Complete" when sent over Browser.
- The received bill can be viewed from "Downloads".
- The browser page displays the payment web links.
- The selected payment link redirects to corresponding payment gateway page.
- The bill payment is successful from the corresponding gateway.

**TEST MATRIX:**

Test case Id	Parameters of variation	Remarks
TC_EBILL_PRINTER_BILL_WITHOUT_INDEX_1_1	<ul style="list-style-type: none"> <li>• Without index.html file</li> </ul>	
TC_EBILL_PRINTER_BILL_WITHOUT_MERCHANTNAME_1_2	<ul style="list-style-type: none"> <li>• Transaction without giving merchant name in the index file</li> </ul>	
TC_EBILL_PRINTER_BILL_WITHOUT_VIR_ADDR_1_3	<ul style="list-style-type: none"> <li>• Transaction without giving virtual address</li> </ul>	
TC_EBILL_PRINTER_BILL_WITHOUT_VIR_ADDR_MERCHANTNAME_1_4	<ul style="list-style-type: none"> <li>• Transaction without virtual address and merchant name</li> </ul>	

TC_EBILL_PRINTER_BILL_INVALID_VIRTUAL_ADDR_1_5	<ul style="list-style-type: none"> <li>Transaction with invalid virtual address</li> </ul>	
TC_EBILL_PRINTER_BILL_INVALID_MERCHANTNAME_1_6	<ul style="list-style-type: none"> <li>Transaction by giving invalid merchant name</li> </ul>	
TC_EBILL_PRINTER_BILL_WITHOUT_AMOUNT_1_7	<ul style="list-style-type: none"> <li>Transaction by not entering amount in PC-app window</li> </ul>	
TC_EBILL_PRINTER_BILL_WITHOUT_REMARKS_1_8	<ul style="list-style-type: none"> <li>Transaction by not giving remarks in index file</li> </ul>	
TC_EBILL_PRINTER_BILL_WITH_MULTIPLE_UPI_APPS_1_9	<ul style="list-style-type: none"> <li>Install multiple UPI supporting bank apps</li> </ul>	
TC_EBILL_PRINTER_BILL_WITH_AMOUNT_IN_DECIMALS_1_10	<ul style="list-style-type: none"> <li>Verify the transaction with amount in decimal values</li> </ul>	
TC_EBILL_PRINTER_BILL_WITH_EXCEEDED_LIMIT_AMOUNT_1_11	<ul style="list-style-type: none"> <li>Verify the transaction with exceeded limit in amount (1,000,0000)</li> </ul>	

### 3.4.2. Payment Gateway Link Verification Test 2

#### TEST DESCRIPTION:

It is aimed to test that bill can be sent from host machine to mobile phone with the payment gateway link.

#### TEST PROCEDURE:

1. Perform **#Basic steps of Bill transfer with App.**
2. Observe the Payment link in the first page of received bill.

#### TEST PASS/FAIL CRITERIA:

Test case passes if

- The mobile phone gets the notification “Bill Received” when sent over mobile app.
- The received bill can be viewed from “SHOW” in mobile app.
- The first page displays the payment web link.
- The selected payment link redirects to corresponding payment gateway page.
- The bill payment is successful from the corresponding gateway.

#### TEST MATRIX:

Test case Id	Parameters of variation	Remarks
TC_EBILL_PRINTER_APP_BILL_WITHOUT_INDEX_1_1	<ul style="list-style-type: none"> <li>Without index.html file</li> </ul>	
TC_EBILL_PRINTER_APP_BILL_WITHOUT_MERCHANTNAME_1_2	<ul style="list-style-type: none"> <li>Transaction without giving merchant name in the index file</li> </ul>	
TC_EBILL_PRINTER_APP_BILL_WITHOUT_VIRTUAL_ADDR_1_3	<ul style="list-style-type: none"> <li>Transaction without giving virtual address</li> </ul>	
TC_EBILL_PRINTER_APP_BILL_WITHOUT_VIRTUAL_ADDR_MERCHANTNAME_1_4	<ul style="list-style-type: none"> <li>Transaction without virtual address and merchant name</li> </ul>	
TC_EBILL_PRINTER_APP_BILL_INVALID_VIRTUAL_ADDR_1_5	<ul style="list-style-type: none"> <li>Transaction with invalid virtual address</li> </ul>	
TC_EBILL_PRINTER_APP_BILL_INVALID_MERCHANTNAME_1_6	<ul style="list-style-type: none"> <li>Transaction by giving invalid merchant name</li> </ul>	
TC_EBILL_PRINTER_APP_BILL_WITHOUT_AMOUNT_1_7	<ul style="list-style-type: none"> <li>Transaction by not entering amount in PC-app window</li> </ul>	
TC_EBILL_PRINTER_APP_BILL_WITHOUT_REMARKS_1_8	<ul style="list-style-type: none"> <li>Transaction by not giving remarks in index file</li> </ul>	
TC_EBILL_PRINTER_APP_BILL_WITH_MULTIPLE_UPI_APPS_1_9	<ul style="list-style-type: none"> <li>Install multiple UPI supporting bank apps</li> </ul>	
TC_EBILL_PRINTER_APP_BILL_WITH_AMOUNT_IN_DECIMALS_1_10	<ul style="list-style-type: none"> <li>Verify the transaction with amount in decimal values</li> </ul>	



TC\_EBILL\_PRINTER\_APP\_BILL\_WITH  
\_EXCEEDED\_LIMIT\_AMOUNT\_1\_11

- Verify the transaction with exceeded limit in amount (1,000,0000)

### 3.4.3. Re-Installation

#### TEST DESCRIPTION:

It is aimed to test whether the setup can be re-installed on the host machine.

#### TEST PROCEDURE:

1. Do not un-install the earlier setup/FTDI driver/Ghost Script driver.
2. Run the latest setup.exe as Administrator.
3. Install the setup.exe.

#### TEST PASS/FAIL CRITERIA:

Test case passes if

- A Printer gets installed on the host machine in the name of "Wdb Systems eBill".
- The printer properties are set as per the specifications.

#### TEST MATRIX:

Test case Id	Parameters of variation	Remarks
TC_EBILL_SETUP_REINSTALL_1_1	<ul style="list-style-type: none"><li>• Verify the installation without uninstalling the existing setup</li></ul>	
TC_EBILL_SETUP_REINSTALL_1_2	<ul style="list-style-type: none"><li>• Verify the installation without uninstalling the FTDI driver</li></ul>	
TC_EBILL_SETUP_REINSTALL_1_3	<ul style="list-style-type: none"><li>• Verify the installation without uninstalling the Ghost script driver</li></ul>	

## APPENDIX A

S. No	Platform Version	API Level	VERSION_CODE	Status
1	Android 6.0	23	Marsh Mallow	
2	Android 5.1	22	LOLLIPOP_MR1	
3	Android 5.0	21	LOLLIPOP	
5	Android 4.4	19	KITKAT	
6	Android 4.3	18	JELLY_BEAN_MR2	
7	Android 4.2, 4.2.2	17	JELLY_BEAN_MR1	
8	Android 4.1, 4.1.1	16	JELLY_BEAN	
9	Android 4.0.3, 4.0.4	15	ICE_CREAM_SANDWICH_MR1	
10	Android 4.0, 4.0.1, 4.0.2	14	ICE_CREAM_SANDWICH	
11	Android 3.2	13	HONEYCOMB_MR2	
12	Android 3.1.x	12	HONEYCOMB_MR1	
13	Android 3.0.x	11	HONEYCOMB	
14	Android 2.3.4	10	GINGERBREAD_MR1	
15	Android 2.3.3			
16	Android 2.3.2			
17	Android 2.3.1			
18	Android 2.3	9	GINGERBREAD	
19	Android 2.2.x	8	FROYO	
20	Android 2.1.x	7	ECLAIR_MR1	
21	Android 2.0.1	6	ECLAIR_0_1	
22	Android 2.0	5	ECLAIR	
23	Android 1.6	4	DONUT	
24	Android 1.5	3	CUPCAKE	
25	Android 1.1	2	BASE_1_1	
26	Android 1.0	1	BASE	

## APPENDIX B

The following performance indices are approximate. There may be variation in few seconds.

### Key Performance Indices:

#### Printer App:

File type	Time taken (Ipad)	Time Taken (Samsung G350E)
1MB.TXT	30sec	32.6sec
3MB.JPG	32sec	45.5sec
3MB.PDF	30sec	35.2sec
5MB.TXT	2min 50sec	2min 44sec

#### Generic App:

File type	Time taken (Ipad)	Time Taken (Samsung G350E)
1MB.TXT	35sec	31.4sec
3MB.JPG	2min 9sec	1min 39sec
3MB.PDF	2min 20sec	1min 34sec
5MB.TXT	3min 29sec	2min 37sec

## APPENDIX C

Test case Id	Parameters of variation	Remarks
TC_EBILL_GENAPP_BILL_TRANSFER_1_1	<ul style="list-style-type: none"> <li>Type of bill is TEXT</li> </ul>	<a href="#">Refer 3.2.1</a>
TC_EBILL_GENAPP_BILL_TRANSFER_1_2	<ul style="list-style-type: none"> <li>Type of bill is PDF</li> </ul>	<a href="#">Refer 3.2.1</a>
TC_EBILL_GENAPP_BILL_TRANSFER_1_3	<ul style="list-style-type: none"> <li>Type of bill is JPG</li> </ul>	<a href="#">Refer 3.2.1</a>
TC_EBILL_GENAPP_BILL_TRANSFER_1_4	<ul style="list-style-type: none"> <li>Type of bill is XLS</li> </ul>	<a href="#">Refer 3.2.1</a>
TC_EBILL_GENAPP_BILL_TRANSFER_2_1	<ul style="list-style-type: none"> <li>3MB bill of PDF type</li> </ul>	<a href="#">Refer 3.2.2</a>
TC_EBILL_GENAPP_BILL_TRANSFER_2_2	<ul style="list-style-type: none"> <li>1MB bill of XLS type</li> </ul>	<a href="#">Refer 3.2.2</a>
TC_EBILL_GENAPP_BILL_TRANSFER_2_3	<ul style="list-style-type: none"> <li>3MB bill of JPG type</li> </ul>	<a href="#">Refer 3.2.2</a>
TC_EBILL_GENAPP_BILL_TRANSFER_2_4	<ul style="list-style-type: none"> <li>5MB bill of TEXT type</li> </ul>	<a href="#">Refer 3.2.2</a>
TC_EBILL_GENAPP_BILL_TRANSFER_3_1	<ul style="list-style-type: none"> <li>Wi-Fi-AP on</li> </ul>	<a href="#">Refer 3.2.3</a>
TC_EBILL_GENAPP_BILL_TRANSFER_3_2	<ul style="list-style-type: none"> <li>Wi-Fi-AP off</li> </ul>	<a href="#">Refer 3.2.3</a>
TC_EBILL_GENAPP_BILL_TRANSFER_3_3	<ul style="list-style-type: none"> <li>Broad Band on</li> </ul>	<a href="#">Refer 3.2.3</a>
TC_EBILL_GENAPP_BILL_TRANSFER_3_4	<ul style="list-style-type: none"> <li>Broad Band off</li> </ul>	<a href="#">Refer 3.2.3</a>
TC_EBILL_GENAPP_BILL_TRANSFER_3_5	<ul style="list-style-type: none"> <li>Wi-Fi-AP and Broad Band off</li> </ul>	<a href="#">Refer 3.2.3</a>
TC_EBILL_GENAPP_BILL_TRANSFER_4_1	<ul style="list-style-type: none"> <li>Customer 1 with Android 2.3.6 having Wi-Fi-AP off</li> <li>Customer 2 with Android 4.4.2 having Broad Band on</li> <li>Customer 3 with Android 4.4.4 having Broad Band off</li> <li>Customer 4 with Android 6.0 having Wi-Fi-AP on</li> </ul>	<a href="#">Refer 3.2.4</a>
TC_EBILL_GENAPP_BILL_TRANSFER_5_1	<ul style="list-style-type: none"> <li>Receiving Notifications</li> <li>Answering Call</li> <li>Dialling a Phone number</li> </ul>	<a href="#">Refer 3.2.5</a>
TC_EBILL_GENAPP_BILL_TRANSFER_6_1	<ul style="list-style-type: none"> <li>1MB bill of PDF type repeatedly</li> </ul>	<a href="#">Refer 3.2.6</a>
TC_EBILL_GENAPP_BILL_TRANSFER_6_2	<ul style="list-style-type: none"> <li>Send 100KB bill of XLS type repeatedly through browser</li> </ul>	<a href="#">Refer 3.2.6</a>
TC_EBILL_GENAPP_BILL_TRANSFER_6_3	<ul style="list-style-type: none"> <li>3MB bill of JPG type repeatedly</li> </ul>	<a href="#">Refer 3.2.6</a>
TC_EBILL_GENAPP_BILL_TRANSFER_6_4	<ul style="list-style-type: none"> <li>5MB bill of TEXT type repeatedly</li> </ul>	<a href="#">Refer 3.2.6</a>
TC_EBILL_GENAPP_DIFFERENT_INTERVALS_1_1	<ul style="list-style-type: none"> <li>15minutes</li> <li>30minutes</li> <li>1hour</li> </ul>	<a href="#">Refer 3.2.7</a>
TC_EBILL_GENAPP_NETWORK_DISRUPT_1_1	<ul style="list-style-type: none"> <li>Turn ON Wi-Fi AP</li> </ul>	<a href="#">Refer 3.3.2</a>
TC_EBILL_GENAPP_NETWORK_DISRUPT_1_2	<ul style="list-style-type: none"> <li>Turn OFF Wi-Fi</li> </ul>	<a href="#">Refer 3.3.2</a>