

**AN AGREEMENT BETWEEN**

**THE GOVERNMENT OF MALAYSIA**

**AND**

**IPS SDN BHD**

**FOR**

**MEPSCASH SERVICES**

**SCHEDULES 1 TO 8**

**SCHEDULE 1**  
**SERVICES AND PROCESS FLOW**

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**MEPSCASH PAYMENT**  
**PROCESS FLOW – EDC TERMINAL IN RESPECT OF POS**

1. Accept the MEPSCASH payment request made by the Cardholder.
2. Insert the Card into the EDC Terminal's slot. The EDC Terminal screen will display the balance of MEPSCASH available in the Card.
3. Enter the amount of payment (subject to maximum RM2,000).
4. If the balance is sufficient, press "Enter" and if insufficient balance, inform the Cardholder.
5. Print the MEPSCASH Transaction Slip in 2 copies, i.e 1 copy to the Cardholder and the other copy for the Agency's record.
6. Return the Card to the Cardholder.
7. At end of day, the Agency's nominated personnel shall:
  - (i) Print the MEPSCASH Transaction Journal;
  - (ii) Dial up MEPSCASH Host via the telephone line per the instructions provided by IPS to send the MEPSCASH transaction data to IPS;
  - (iii) Check the total MEPSCASH Transaction value against the MEPSCASH Transaction Journal.

The Government shall comply with the acceptance procedures as follows:

- (a) all transactions shall be drawn in Ringgit only;
- (b) all transaction information printed on the transaction receipt shall be legible and identical on both the Cardholders' and the Government's copy; and
- (c) upon completion of each successful transaction, a true and completed copy thereof is given to the Cardholder and retain one (1) copy of the same with the Government.

**MEPSCASH PAYMENT  
PROCESS FLOW – SMART CARD READER IN RESPECT OF PORTAL**

1. The Cardholder will visit the Agency's website and upon completion of the transaction, select the MEPSCASH logo for payment with MEPSCASH.
2. The Cardholder shall insert his Card into the Smart Card Reader.
3. The Cardholder then clicks the "Pay" instruction to execute payment if the transaction details are correct and the MEPSCASH available balance displayed is sufficient.
4. The website and MEPSCASH Host will process the payment request and when the payment transaction is completed, the statement "Transaction Successful" will be displayed.
5. The Cardholder may print the payment transaction as receipt.
6. On the next transaction day, the Agency's nominated personnel shall:
  - (i) Access into IPS's MEPSCASH Internet System via the log-in access using the password provided by IPS to obtain the MEPSCASH on Internet Transaction Report;
  - (ii) Print the report from IPS's system for checking and reconciliation of the MEPSCASH payment collection by the Agency;
  - (iii) In the event IPS's system recorded a payment data that is not updated in the Agency's system, inform the IT Personnel of the Agency to update the Agency's data accordingly.

**MEPSCASH RELOAD****PROCESS FLOW – ACCOUNT LINK RELOAD VIA EDC TERMINAL**

1. The reload via account link function is used to **transfer money from the Cardholder's Financial Institution account to the MEPSCASH card** and is performed by the Cardholder on an attended or unattended EDC Terminal that has been installed with a loading Secured Access Module.
2. An ATM Personal Identification Number (PIN) shall be used to secure the reload operation of the MEPSCASH.
3. Reload via the EDC Terminal is deemed a Not-On-Us transaction, where the card issuer and the acquirer of loading terminal are different organisations. The Reload Not-On-Us fee shall be deducted from the Cardholder's account with the Financial Institution.
4. The Cardholder inserts his ATM card into the slot and the available MEPSCASH balance in the Card will be displayed on the terminal screen.
5. The Cardholder then keys-in the amount of reload value and select from either his Savings or Current Account for the transfer of money to the MEPSCASH card.
6. After entering his PIN, the EDC Terminal will process the reload transaction and a receipt will be generated when the transaction is successful.
7. All loading transactions are online and the load transaction is logged at MEPSCASH host.

**SCHEDULE 2**  
**CLEARING AND SETTLEMENT PROCESS**

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**PROCESS**

**DAY 1 (transaction day) - CLEARING**

1. Collection of MEPSCASH transactions from the EDC Terminals or Portal by IPS's system is from midnight 00.00 till 23.59 p.m
2. Midnight (cut-over) – processing of collected transactions by MEPSCASH system.

**DAY2 (next transaction day) - SETTLEMENT**

**8.00am** Government agencies will receive all the reports for POS MEPSCASH transactions via FTP.

(For Portal, the Government agency will be able to obtain the reports real time via the online access provided by IPS.)

**11.00am** IPS will credit the Main Collection Account of the Government agency with the MEPSCASH transaction value less the agreed Commission.

**SCHEDULE 3**  
**SERVICE LEVEL FOR PORTAL TRANSACTION ACCEPTANCE**

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**SERVICE LEVEL**

1. MEPSCASH system availability to support Portal transactions of the Government agency will be at 98.0% ANNUALLY.
2. The MEPSCASH system will require 5 minutes downtime to perform the clearing and settlement process.
3. Any maintenance activities which require the MEPSCASH system to be switched off will be notified to all the Government Agencies with 2 weeks prior notice.

**SCHEDULE 4  
READINESS, SPECIFICATION AND UAT  
FOR PORTAL TRANSACTION ACCEPTANCE**

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**READINESS**

1. The agency is required to have:
  - (i) A Portal that accepts payment over the internet.
  - (ii) Communication with MEPSCASH system.
2. The agency's Portal shall configure two URLs or server IPs namely:
  - (i) IP for connectivity to MEPSCASH system. IPS will provide the IP to all the Agency Portal.
  - (ii) URL to enable the MEPSCASH system to update the payment status to the Agency Portal. The Agency shall provide such information in the Registration Form provided.
3. Public Keys and Certificate:
  - (i) This is to ensure that the transaction is not been tampered and is genuinely coming from the valid government agency portal. All transactions that are sent to or received from the MEPSCASH system need to be signed and calculated using the Public Key which is exchanged between both parties.
  - (ii) If the Public Keys or certificate is equipped with a password then the password needs to be enclosed together with it. The purposes of the Public Keys or certificate are:
    - a) Government Agency Public Key.

Will be given to MEPSCASH system operator (IPS) in order for the MEPSCASH system way to verify the transaction requested by the Government Agency.
    - b) Payment Gateway Public Key.

To be given to the Agency in order for the Government Agency's Portal to verify the response of the requested transaction from the MEPSCASH system.

4. MEPSCASH Plugin Software - IPS will provide the mcashplugin.cab to all the Government Agencies and will advise the agency if there is an updated version of the mcashplugin.cab that needs to be installed in the system.

#### **SPECIFICATION**

Please refer to Appendix 4-1.

#### **USER ACCEPTANCE TEST (UAT)**

Please refer to Appendix 4-2.

**SCHEDULE 4**  
**(APPENDIX 4-1)**  
**SPECIFICATION/TECHNICAL MANUAL**  
**MERCHANT GATEWAY IMPLEMENTATION GUIDE**

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## **1. INTRODUCTION**

The payment suite developed by IPS Sdn Bhd makes it easy to integrate MEPSCASH payments in any webpage or commerce environment.

A MEPSCASH payment consists of the transfer of e-money from the MEPSCASH card to the Secure Access Module, which is located at the payment operator's system, i.e IPS Sdn Bhd.

### **1.1 MEPCASH Card**

MEPSCASH card is a smartcard that uses triple DES for cryptography. The card can be loaded up to the maximum balance of RM2,000. Every MEPSCASH card is unique by its Purse ID. The Purse ID will be processed in every transaction done by the card. The MEPSCASH card is ideal for payment of small value.

### **1.2 Card Reader**

The MEPSCASH payment over the internet uses a low cost USB Smart Card Reader, any USB Smart card Reader can be used as an interface to read and write to MEPSCASH card from within the Personal Computer.

### **1.3 The C-ZAM/VMT**

The C-ZAM/VMT is an electronic cash register used to store all the e-money between two collections. A collection is the operation where the e-money which is temporary stored in the CZAM/VMT, is transferred to the IPS host for clearing and settlement.

One CZAM/VMT can have 48 concurrent transactions and it is scalable.

### **1.4 Software**

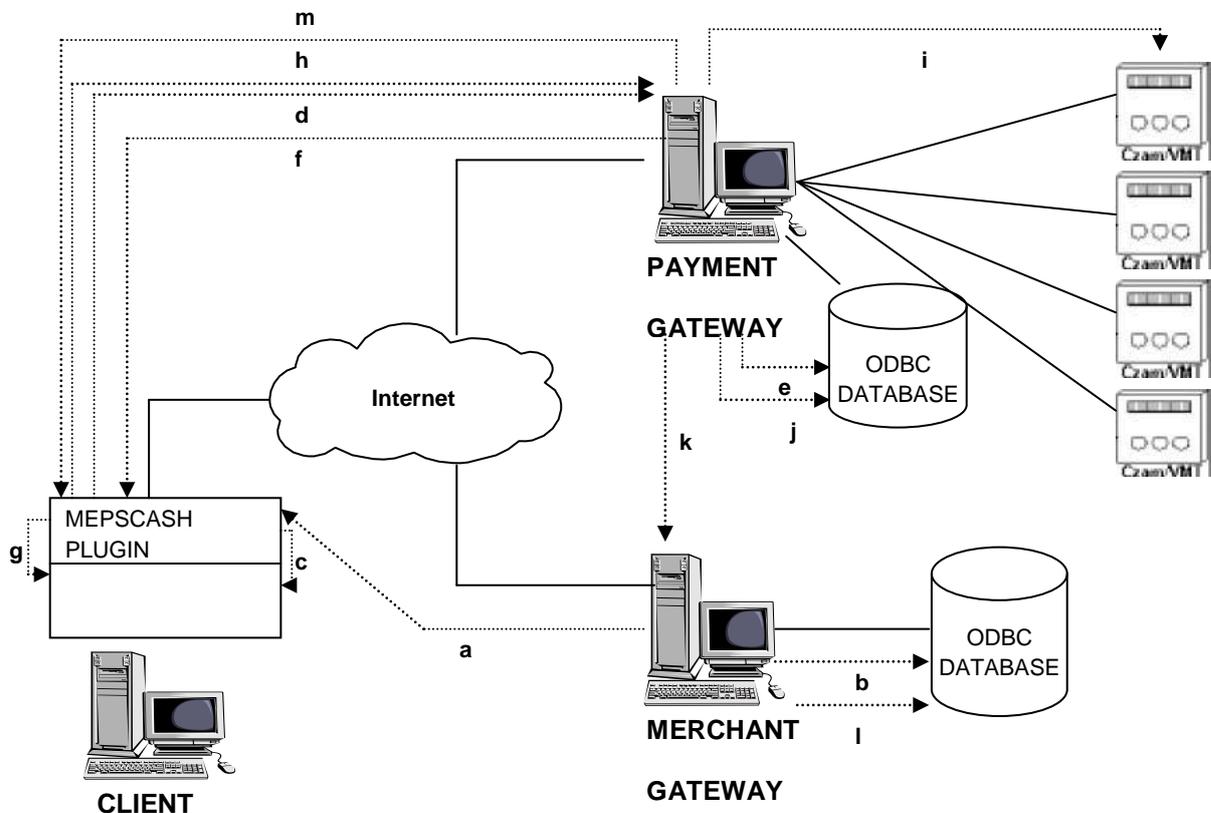
The IPS Payment Gateway makes it possible to pay with MEPSCASH card in an e-commerce environment. The MEPSCASH plugin (mCash.dll for Internet Explorer and npmcash.xpi for Mozilla Firefox) makes it possible for the merchant gateway to interact with the card and the reader, thus allowing the payment transaction to happen.

The MEPSCASH plugin will be downloaded from one of the merchant gateway pages.

The process used in a transaction is described as follows:

- a) The merchant server initiates the MEPSCASH plugin.
- b) The merchant server inserts a record in the Merchant Gateway database using the ODBC data source. The status of the transaction is neutral (0).
- c) MEPSCASH plugin will interact with the USB card reader driver to read the MEPSCASH card information.
- d) Payment inquiry will be sent to the payment server after the customer clicks the pay button.
- e) Payment server will insert a record in the Payment Gateway database using the ODBC data source. The status of the transaction is neutral (00).
- f) Payment server will respond to the inquiry.
- g) The MEPSCASH plugin initiates a debit of the MEPSCASH card
- h) The MEPSCASH plugin will give a debit status to the Payment Gateway.
- i) Payment Gateway will credit the CZAM/VMT.
- j) Payment server updates the transaction status at the Payment Gateway database to "successful" status.
- k) Payment Server sends the payment status to Merchant server.
- l) Merchant server will update the Merchant Gateway database to a "successful" status and prompt successful page to the user.
- m) Payment server will response to the confirmation given by the MEPSCASH plugin and MEPSCASH plugin closes the session with the USB card reader.

(Please refer to the diagram for transaction flow)



## 2. IMPLEMENTATION

### 2.1 Administrative Requirement

- (i) The Merchant Gateway needs to be registered at the Payment Gateway hosted by IPS Sdn Bhd. This registration will enable the Payment Gateway to accept the transaction from the valid Merchant Gateway and to ensure that the Merchant Gateway will receive their money on the next working day.
- (ii) IPS Sdn Bhd will provide the registration form to the Merchant Gateway that is interested to accept MEPSCASH as their payment mode.

4 mandatory fields must be completed by the Merchant Gateway which are:

1. Merchant Name.
2. Account Number with the issuing bank.
3. Callback Uniform Resource Locator (URL). (Page to accept the payment status from Payment Gateway)
4. Fee (Merchant Discount Rate that agreed between IPS Sdn Bhd and the merchant)



## 2.2 Technical Requirement

(i) Communication with Payment Gateway.

Merchant Gateway needs to configure two URLs or server IPs namely:

- a) IP to get connected to the payment server. IPS Sdn Bhd will provide the IP to the Merchant Gateway.
- b) URL to enable the Payment Server to throw the payment status to the Merchant Gateway. Merchant needs to supply this information in the Merchant registration form provided by IPS Sdn Bhd.

(iii) Public Keys and Certificate.

To ensure that the transaction is not been tampered and genuinely coming from the valid Merchant Gateway or a valid Payment Gateway, all transaction that is sent to or received from the Payment Gateway needs to be signed and calculated using a public key which is exchanged between both parties. If the Public Key or certificate is equipped with a password then the password needs to be enclosed together with it.

The purposes of the Public Key(s) or certificate are:

a) Merchant Gateway Public Key.

Will be given to Payment Gateway Operator (IPS Sdn Bhd) in order for the Payment Gateway to verify the transaction request by the Merchant Gateway.

b) Payment Gateway Public Key.

To be given to Merchant Gateway in order for the Merchant Gateway to verify the response of the requested transaction from the Payment Gateway.

**Note: The method or procedure on how to create the signature of the transaction will be discussed in the next section.**

(iv) MEPSCASH Plugin Software.

To enable the user to pay using the MEPSCASH card, depending on the browser that is used, the user needs to install MEPSCASH plugin which is a dynamic link library (dll) file or a cross platform interface (xpi) file in their system.

These files will be registered automatically when the user access a page for payment from the Merchant Gateway.

IPS Sdn Bhd will provide the mcashplugin.cab (for Internet Explorer) and npmcash.xpi (for Mozilla Firefox) to the Merchant Gateway and will advice the merchant if there is an updated version of the mcashplugin.cab or npmcash.xpi that needs to be installed in the system.

### **3. CREATION AND VERIFICATION OF TRANSACTION SIGNATURE**

#### **3.1 Signature Calculation For Payment Request**

Merchant Gateway will use their private key in order to sign the transaction. Combination of 3 fields will be used for this process namely:

- a) Merchant ID. (Id that is registered and provided by IPS Sdn Bhd)
- b) Order ID. (Unique ID that is use to identify a transaction, this information must be unique all the time)
- c) Transaction Amount.

The Order ID and transaction amount are fields that must be registered in the Merchant Gateway databases to uniquely identify the transaction, while the payment status fields in the mandatory field confirms the status of the transaction. The Merchant is allowed to register other information as part of their own requirements.

#### **3.2 Signature Verification For Payment Confirmation**

Merchant Gateway will use the Payment Gateway Operator (IPS Sdn Bhd) public key in order to verify the signature received for the payment confirmation. The same combination of 3 fields will be used for this process namely:

- a) Merchant ID. (Id that is registered and provided by IPS Sdn Bhd)
- b) Order ID. (Unique ID that is used to identify a transaction, this information must be unique all the time)
- c) Transaction Amount.

Prior to the signature verification, Merchant Gateway needs to ensure that the order ID received is the same Order ID that was registered in the database in order to change the status of the transaction to successful or not.

## 4. MIME FILE CONFIFURATION FOR MOZILLA CROSS PLATFORM INTERFACE FILE

To enable the user to download the cross platform interface file, the MIME types file needs to be configured to enable the server and the user browser to recognize the file. After changing the MIME types file, it is advisable to restart the merchant server.

### 4.1 MIME Configuration for Apache and Tomcat

- Find MIME types file within your hosting application. (i.e C:/Program File/Apache Group/Apache2/Conf/mime.types).
- Add the following mime type and extension within the file.  
application/x-xpinstall      xpi
- Restart the server.

### 4.2 MIME Configuration for Window IIS

- Goto - IIS configuration dialog (control panel--server manager---IIS).
- Right click at the default web and choose property.
- Click the HTTP headers tab.
- Click File Types at the MIME Map legion  
Click New Type  
Enter the below information  
    Assocaited Extension   : xpi  
    Content type (MIME)    : application/x-xpinstall
- Click Ok.
- Click Ok.
- Click Apply.
- Click Ok.
- Restart your PC/Server

## 5. SAMPLE CODES

The given codes are all written in PHP, the Merchant Gateway Operator is required to convert the codes to the programming languages that is supported by their system.

### 5.1 Signature Calculation For Payment Request And Database Logging

```
$SignData = sprintf("% -10s% -60s%08d", $G_MerchantId, $OrderId, $Amt);  
$fp=fopen($G_MerchantKeyPath,"r");  
$priv_key=fread($fp,8192);  
fclose($fp);  
$res = openssl_get_privatekey($priv_key,$G_MerchantKeyPwd);  
openssl_sign($SignData, $Signature, $res, OPENSSL_ALGO_MD5);  
$SignStr = bin2hex($Signature);
```

```
// record the order to database
$hDb = odbc_connect($G_DBDSn, $G_DBUser, $G_DBPwd);
$Sql = "insert Orders(OrderId, Amt, Status) values('".$OrderId."', ".$Amt."', 0)";
odbc_exec($hDb, $Sql);
```

## 5.2 Plugins Downloadable Object

```
<OBJECT ID="mCash_MS" CLASSID="CLSID:DFEBCF64-2371-446F-89B1-
F658CEA43395" codebase="mcashplugin.cab#Version=1,0,0,0"
style="display:none">
    <embed ID="mCash_MO" type="application/x-mcashplugin"
    PLUGINSPPAGE="npmcash.xpi" hidden="true"></embed>
</OBJECT>
```

## 5.3 Get MEPCash Balance And Execute Payment

```
<SCRIPT LANGUAGE="JavaScript">
var TotAmt = <? echo $Amt; ?>;
var OrderId = "<? echo $OrderId; ?>";
var MerchantId = "<? echo $G_MerchantId; ?>";
var Signature = "<? echo $SignStr; ?>";
var ServerIp = "<? echo $G_ServerIp; ?>";
var ServerPort = <? echo $G_ServerPort; ?>;
var bPaying = false;

var mCashCtl;
if (navigator.appName.toLowerCase() == "microsoft internet explorer") {
    mCashCtl = document.getElementById("mCash_MS");
} else if (navigator.appName.toLowerCase() == "netscape") {
    mCashCtl = document.getElementById("mCash_MO");
}

setTimeout("GetBalance()", 100);

function Pay()
{
    if (bPaying)
        return;

    bPaying = true;
    var iRet;
    iRet = mCashCtl.Pay(MerchantId, OrderId, TotAmt, "0458", ServerIp,
ServerPort, Signature);

    if (iRet != 0) {
        alert("Init error!" + iRet);
        return;
    }
}
}
```

```
function PayProcess(iStep)
{
    var strText = ""
    if (iStep == 1)
        strText = "Check card...";
    else if (iStep == 2)
        strText = "Connect server...";
    else if (iStep == 3)
        strText = "Send payment request...";
    else if (iStep == 4)
        strText = "Debit card...";
    else if (iStep == 5)
        strText = "Send debit result...";

    PurseBalance.innerHTML = strText
}

function PayResult(iResult)
{
    if (iResult == 0)
        window.location = "payok.php";
    else
        window.location = "payerr.php?retcode=" + iResult.toString();
}

function GetBalance()
{
    i = 0;
    iBal = mCashCtl.GetBalance();
    dBal = 0.0;
    dBal = iBal/100;
    PurseBalance.innerHTML = "Balance:" + String(dBal);
}

<SCRIPT LANGUAGE="VBScript">
    Sub mCash_MS_PayProcess(iStep)
        strText = ""
        IF iStep = 1 THEN
            strText = "Check card..."
        ELSEIF iStep = 2 THEN
            strText = "Connect server..."
        ELSEIF iStep = 3 THEN
            strText = "Send payment request..."
        ELSEIF iStep = 4 THEN
            strText = "Debit card..."
        ELSEIF iStep = 5 THEN
            strText = "Send debit result..."
        END IF
    End Sub

```

```

        PurseBalance.innerHTML = strText
    End Sub
    Sub mCash_MS_PayResult(iResult)
        IF iResult = 0 THEN
            window.location = "payok.php?retcode=" & iResult
        ELSE
            window.location = "payerr.php?retcode=" & iResult
        END IF
    End Sub
</SCRIPT>

```

#### 5.4 Check The Order ID Exist In Database

```

// Check if the order in database
$hDb = odbc_connect($G_DBDSn, $G_DBUser, $G_DBPwD);
$Sql = "select count(*) from Orders where orderid = ".$OrderId." and Amt =
".$Amt." and Status != 1";
$result_id = odbc_do($hDb, $Sql);
if (odbc_fetch_row($result_id) == false || odbc_result($result_id, 1) != 1) {
    echo "No Record.".$Sql;
    return;
}

```

#### 5.5 Verify Signature And Update Record Status

```

// verify sinature
$SignData = sprintf("% -10s% -60s%08d", $MerchantId, $OrderId, $Amt);
$fp = fopen($G_ServerCertPath, "r");
$cert = fread($fp, 8192);
fclose($fp);
$pubkeyid = openssl_get_publickey($cert);

$iStatus = 1; // payment success
if (!openssl_verify($SignData, $Sinature, $pubkeyid, OPENSSL_ALGO_MD5))
{
    echo "Sinature error!";
    $iStatus = 2; // Signature error
}
$Sql = sprintf("Update Orders Set Status=%d where OrderId='%s'", $iStatus,
$OrderId);
odbc_exec($hDb, $Sql);

```



**SCHEDULE 4**  
**(APPENDIX 4-2)**  
**USER ACCEPTANCE – TEST SCRIPTS**

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## **1 INTRODUCTION**

This document is developed by IPS Sdn Bhd to assist the participating merchants or government agencies to test their web payment gateway.

This document will guide the test personnel during the testing in order to ensure that the web payment portal meets the technical requirements of MEPSCASH transaction over the internet.

## **2 SCOPE**

This document is applicable to all the internet merchants and government agencies which are involved in the MEPSCASH transaction over the internet.

The test covers:

- Successful and rejected transactions.
- Active-X installation.
- Public key certificate validation.
- Connectivity.

## **3 TEST REQUIREMENTS**

### **3.1 Hardware Requirements**

- a) 3 test MEPSCASH cards.
- b) 3 PC/SC readers.
- c) 3 personnel computers.

### **3.2 Software / Application Requirements**

- a) PC/SC reader drivers.
- b) Mcashplugin.cab (for Internet Explorer) and npmcash.xpi (for Mozilla Firefox).
- c) mCashSign.dll (for asp code only).

### **3.3 Key / Certificate Requirements**

- a) Merchant / Agencies private key.
- b) IPS Sdn Bhd public certificate.
- c) Merchant / Agencies dummy private key (for certificate verification error test).

### **3.4 Personnel / Tester Requirements**

- a) Test personnel needs to know how to use the merchants / agencies payment website.
- b) For some test cases, the test personnel is required to change parameters within the merchants / agencies payment portal code.
- c) Test personnel needs to know how the application interact with the plug-in, keys and certificate in order to execute some of the test cases.

## **TEST SCRIPTS**

### **TEST SCRIPT #01 – SUCCESSFUL TRANSACTION**

#### **TEST MODULE – MERCHANT GATEWAY - CLIENTS**

#### **REQUIREMENTS**

1. PC/SC reader driver have been installed.
2. PC/SC reader is attached to personal computer.
3. MEPSCASH active-x (PLUGIN) has been installed.
4. MEPSCASH test card have sufficient balance.
5. PC is connected to the internet.

#### **STEPS**

1. Insert MEPSCASH card at the PS/SC card reader.
2. Open URL for payment. (Depends on the merchant / agency website).
3. Ensure balance on card is higher than the payment amount.
4. Click button for payment.

#### **EXPECTED RESULTS**

1. Successful payment page is displayed.
2. MEPSCASH card balance is deducted with the payment amount.
3. Merchant / Agency gateway received callback URL.

**FINAL RESULT #01 – (PASS / FAIL)**

COMMENTS –

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End Date and Time - \_\_\_\_\_

Executor Name and Signature - \_\_\_\_\_

\_\_\_\_\_

## **TEST SCRIPT #02 – PARAMETERS ERROR**

### **TEST MODULE – MERCHANT GATEWAY - CLIENTS**

#### **REQUIREMENTS**

1. PC/SC reader driver have been installed.
2. PC/SC reader is attached to personal computer.
3. MEPSCASH active-x (PLUGIN) has been installed.
4. MEPSCASH test card have sufficient balance.
5. PC is connected to the internet.

#### **STEPS**

1. Change the payment page program parameter. (var Signature = "1234").
2. Insert MEPSCASH card at the PS/SC card reader.
3. Open URL for payment. (Depends on the merchant / agency website).
4. Ensure balance on card is higher than the payment amount.
5. Click button for payment.

#### **EXPECTED RESULTS**

1. Transaction will stop.
2. Init Error -1 will be displayed on screen.

**FINAL RESULT #02 – (PASS / FAIL)**

COMMENTS –

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End Date and Time - \_\_\_\_\_

Executor Name and Signature - \_\_\_\_\_

\_\_\_\_\_

## **TEST SCRIPT #03 – CURRENCY ERROR**

### **TEST MODULE – MERCHANT GATEWAY - CLIENTS**

#### **REQUIREMENTS**

1. PC/SC reader driver have been installed.
2. PC/SC reader is attached to personal computer.
3. MEPSCASH active-x (PLUGIN) has been installed.
4. MEPSCASH test card have sufficient balance.
5. PC is connected to the internet.

#### **STEPS**

1. Change the payment page program currency from 0458 to 0433.
2. Insert MEPSCASH card at the PS/SC card reader.
3. Open URL for payment. (Depends on the merchant / agency website).
4. Ensure balance on card is higher than the payment amount.
5. Click button for payment.

#### **EXPECTED RESULTS**

1. Unsuccessful payment page will be displayed.
2. Error return code -2.

**FINAL RESULT #03 – (PASS / FAIL)**

COMMENTS –

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End Date and Time - \_\_\_\_\_

Executor Name and Signature - \_\_\_\_\_

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## **TEST SCRIPT #04 – INSUFFICIENT BALANCE**

### **TEST MODULE – MERCHANT GATEWAY - CLIENTS**

#### **REQUIREMENTS**

1. PC/SC reader driver have been installed.
2. PC/SC reader is attached to personal computer.
3. MEPSCASH active-x (PLUGIN) has been installed.
4. PC is connected to the internet.

#### **STEPS**

1. Insert MEPSCASH card at the PS/SC card reader.
2. Open URL for payment. (Depends on the merchant / agency website).
3. Ensure payment amount is higher than the card balance.
4. Click button for payment.

#### **EXPECTED RESULTS**

1. Unsuccessful payment page will be displayed.
2. Error return code -4.

**FINAL RESULT #04 – (PASS / FAIL)**

COMMENTS –

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End Date and Time - \_\_\_\_\_

Executor Name and Signature - \_\_\_\_\_

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## **TEST SCRIPT #05 – CARD CANNOT BE READ**

### **TEST MODULE – MERCHANT GATEWAY - CLIENTS**

#### **REQUIREMENTS**

1. PC/SC reader driver have been installed.
2. PC/SC reader is attached to personal computer.
3. MEPSCASH active-x (PLUGIN) has been installed.
4. MEPSCASH test card have sufficient balance.
5. PC is connected to the internet.

#### **STEPS**

1. Insert MEPSCASH card the wrong way at the PS/SC card reader.
2. Open URL for payment. (Depends on the merchant / agency website).

#### **EXPECTED RESULTS**

1. The MEPSCASH available balance will show -0.01.

**FINAL RESULT #05 – (PASS / FAIL)**

COMMENTS –

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End Date and Time - \_\_\_\_\_

Executor Name and Signature - \_\_\_\_\_

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## **TEST SCRIPT #06 – CARD CANNOT BE READ AND PAYMENT BUTTON CLICK**

### **TEST MODULE – MERCHANT GATEWAY - CLIENTS**

#### **REQUIREMENTS**

1. PC/SC reader driver have been installed.
2. PC/SC reader is attached to personal computer.
3. MEPSCASH active-x (PLUGIN) has been installed.
4. MEPSCASH test card have sufficient balance.
5. PC is connected to the internet.

#### **STEPS**

1. Insert MEPSCASH card the wrong way at the PS/SC card reader.
2. Open URL for payment. (Depends on the merchant / agency website).
3. Click button for payment.

#### **EXPECTED RESULTS**

1. The MEPSCASH available balance will show -0.01.
2. Unsuccessful payment page will be displayed.
3. Error return code -6.

**FINAL RESULT #06 – (PASS / FAIL)**

COMMENTS –

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End Date and Time - \_\_\_\_\_

Executor Name and Signature - \_\_\_\_\_

\_\_\_\_\_

**TEST SCRIPT #07 – PC/SC CARD READER NOT ATTACHED TO PC.**

**TEST MODULE – MERCHANT GATEWAY - CLIENTS**

**REQUIREMENTS**

1. PC/SC reader driver have been installed.
2. MEPSCASH active-x (PLUGIN) has been installed.
3. MEPSCASH test card have sufficient balance.
4. PC is connected to the internet.

**STEPS**

1. Insert MEPSCASH card at the PS/SC card reader.
2. Open URL for payment. (Depends on the merchant / agency website).

**EXPECTED RESULTS**

1. The MEPSCASH available balance will show -0.01.

**FINAL RESULT #07 – (PASS / FAIL)**

COMMENTS –

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End Date and Time - \_\_\_\_\_

Executor Name and Signature - \_\_\_\_\_

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**TEST SCRIPT #08 – PC/SC CARD READER NOT ATTACHED TO PC AND PAYMENT BUTTON CLICK.**

**TEST MODULE – MERCHANT GATEWAY - CLIENTS**

**REQUIREMENTS**

1. PC/SC reader driver have been installed.
2. MEPSCASH active-x (PLUGIN) has been installed.
3. MEPSCASH test card have sufficient balance.
4. PC is connected to the internet.

**STEPS**

1. Insert MEPSCASH card at the PS/SC card reader.
2. Open URL for payment. (Depends on the merchant / agency website).
3. Click button for payment.

**EXPECTED RESULTS**

1. The MEPSCASH available balance will show -0.01.
2. Unsuccessful payment page will be displayed.
3. Error return code -6.

**FINAL RESULT #08 – (PASS / FAIL)**

COMMENTS –

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End Date and Time - \_\_\_\_\_

Executor Name and Signature - \_\_\_\_\_

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## **TEST SCRIPT #09 – ACTIVE-X INSTALLATION 1.**

### **TEST MODULE – MERCHANT GATEWAY - CLIENTS**

#### **REQUIREMENTS**

1. PC/SC reader driver have been installed.
2. PC/SC reader is attached to personal computer.
3. MEPSCASH test card have sufficient balance.
4. Active-X (MEPSCASH plugin) is not installed.
5. Mcashplugin.cab exists at the merchant / agency server.
6. PC is connected to the internet.
7. Internet Explorer as the browser

#### **STEPS**

1. Insert MEPSCASH card at the PS/SC card reader.
2. Open URL for payment. (Depends on the merchant / agency website).

#### **EXPECTED RESULTS**

1. Pop-up message to install the active-x appears.
2. Once installed the card balance will appears on payment page.

**FINAL RESULT #09 – (PASS / FAIL)**

COMMENTS –

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End Date and Time - \_\_\_\_\_

Executor Name and Signature - \_\_\_\_\_

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## **TEST SCRIPT #10 – ACTIVE-X INSTALLATION 2.**

### **TEST MODULE – MERCHANT GATEWAY - CLIENTS**

#### **REQUIREMENTS**

1. PC/SC reader driver have been installed.
2. PC/SC reader is attached to personal computer.
3. MEPSCASH test card have sufficient balance.
4. Active-X (MEPSCASH plugin) is not installed.
5. Mcashplugin.cab not exists at the merchant / agency server.
6. PC is connected to the internet.

#### **STEPS**

1. Insert MEPSCASH card at the PS/SC card reader.
2. Open URL for payment. (Depends on the merchant / agency website).

#### **EXPECTED RESULTS**

1. Pop-up message to install the active-x not appears.
2. The card balance will not appear on payment page.

**FINAL RESULT #10 – (PASS / FAIL)**

COMMENTS –

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End Date and Time - \_\_\_\_\_

Executor Name and Signature - \_\_\_\_\_

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## **TEST SCRIPT #11 – CROSS PLATFORM INTERFACE FILE INSTALLATION 1.**

### **TEST MODULE – MERCHANT GATEWAY - CLIENTS**

#### **REQUIREMENTS**

1. PC/SC reader driver have been installed.
2. PC/SC reader is attached to personal computer.
3. MEPSCASH test card have sufficient balance.
4. Cross Platform Interface file is not installed.
5. Npmcash.xpi exists at the merchant / agency server.
6. PC is connected to the internet.
7. Mozilla Firefox as the browser

#### **STEPS**

1. Insert MEPSCASH card at the PS/SC card reader.
2. Open URL for payment. (Depends on the merchant / agency website).

#### **EXPECTED RESULTS**

1. Pop-up message to install the cross platform interface file appears.
2. Once installed the card balance will appears on payment page.

**FINAL RESULT #11 – (PASS / FAIL)**

COMMENTS –

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End Date and Time - \_\_\_\_\_

Executor Name and Signature - \_\_\_\_\_

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## **TEST SCRIPT #12 – CROSS PLATFORM INTERFACE FILE INSTALLATION 2.**

### **TEST MODULE – MERCHANT GATEWAY - CLIENTS**

#### **REQUIREMENTS**

1. PC/SC reader driver have been installed.
2. PC/SC reader is attached to personal computer.
3. MEPSCASH test card have sufficient balance.
4. Cross Platform Interface file is not installed.
5. Npmcash.xpi not exists at the merchant / agency server.
6. PC is connected to the internet.

#### **STEPS**

1. Insert MEPSCASH card at the PS/SC card reader.
2. Open URL for payment. (Depends on the merchant / agency website).

#### **EXPECTED RESULTS**

1. Pop-up message to install the cross platform interface file appears.
2. The browser cannot installed the file because the file not exist (cannot be found).
3. The card balance will not appear on payment page.

**FINAL RESULT #12 – (PASS / FAIL)**

COMMENTS –

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End Date and Time - \_\_\_\_\_

Executor Name and Signature - \_\_\_\_\_

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## **TEST SCRIPT #13 – CANNOT CONNECT TO MEPSCASH HOST**

### **TEST MODULE – MERCHANT GATEWAY - CLIENTS**

#### **REQUIREMENTS**

1. PC/SC reader driver have been installed.
2. PC/SC reader is attached to personal computer.
3. MEPSCASH active-x (PLUGIN) has been installed.
4. MEPSCASH test card have sufficient balance.
5. PC is connected to the internet.

#### **STEPS**

1. Insert MEPSCASH card at the PS/SC card reader.
2. Open URL for payment. (Depends on the merchant / agency website).
3. Ensure card balance is higher than the payment amount.
4. Remove the internet connectivity from PC.
5. Click button for payment.

#### **EXPECTED RESULTS**

1. Unsuccessful payment page will be displayed.
2. Error return code -21.

**FINAL RESULT #13 – (PASS / FAIL)**

COMMENTS –

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End Date and Time - \_\_\_\_\_

Executor Name and Signature - \_\_\_\_\_

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## **TEST SCRIPT #14 – CERTIFICATE VERIFICATION ERROR**

### **TEST MODULE – MERCHANT GATEWAY - CLIENTS**

#### **REQUIREMENTS**

1. PC/SC reader driver have been installed.
2. PC/SC reader is attached to personal computer.
3. MEPSCASH active-x (PLUGIN) has been installed.
4. MEPSCASH test card have sufficient balance.
5. PC is connected to the internet.
6. Wrong key installed at the Merchant / Agency server.

#### **STEPS**

1. Insert MEPSCASH card at the PS/SC card reader.
2. Open URL for payment. (Depends on the merchant / agency website).
3. Ensure card balance is higher than the payment amount.
4. Click button for payment.

#### **EXPECTED RESULTS**

1. Unsuccessful payment page will be displayed.
2. Error return code -24.

**FINAL RESULT #14 – (PASS / FAIL)**

COMMENTS –

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End Date and Time - \_\_\_\_\_

Executor Name and Signature - \_\_\_\_\_

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## **TEST SCRIPT #15 – CONCURRENT SUCCESSFUL TRANSACTION**

### **TEST MODULE – MERCHANT GATEWAY - CLIENTS**

#### **REQUIREMENTS**

1. PC/SC reader driver have been installed.
2. PC/SC reader is attached to personal computer.
3. MEPSCASH active-x (PLUGIN) has been installed.
4. MEPSCASH test card have sufficient balance.
5. PC is connected to the internet.
6. All of the above need to be prepared for 3 sets.

#### **STEPS**

1. All 3 testers insert MEPSCASH card at the PS/SC card reader.
2. Open URL for payment. (Depends on the merchant / agency website).
3. Ensure card balance is higher than the payment amount.
4. All 3 testers click button for payment at same time.

#### **EXPECTED RESULTS**

1. Successful payment page is displayed at each client pc.
2. MEPSCASH card balance is deducted with the payment amount.
3. Merchant / Agency gateway will receive 3 callback URLs.

**FINAL RESULT #15 – (PASS / FAIL)**

COMMENTS –

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End Date and Time - \_\_\_\_\_

Executor Name and Signature - \_\_\_\_\_

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**APPENDIX 1: TRANSACTION CODES**

<b>DESCRIPTION</b>	<b>CODE</b>
PAY_OK	0
PAY_ERR_USER_CANCELLED	1
PAY_ERR_BAD_PARAMS	-1
PAY_ERR_WRONG_CURRENCY	-2
PAY_ERR_AMT_OVER_LIMIT	-3
PAY_ERR_BAL_NOT_ENOUGH	-4
PAY_ERR_INVALID_PIN	-5
PAY_ERR_OPEN_CARD	-6
PAY_ERR_GET_BAL	-11
PAY_ERR_GET_PUR_DATA	-12
PAY_ERR_GET_FAB_DATA	-13
PAY_ERR_INIT_DEBIT	-14
PAY_ERR_SAM_TOT_AC	-15
PAY_ERR_SINGLE_DEBIT	-16
PAY_ERR_REQ_SAM_TOT_AC	-17
PAY_ERR_GET_TRAN_AC	-18
PAY_ERR_CONNECT_FAILED	-21
PAY_ERR_SEND_CINQ	-22
PAY_ERR_RECV_RINQ	-23
PAY_ERR_CINQ_REJ	-24
PAY_ERR_SEND_CTRA	-25
PAY_ERR_RECV_RTRA	-26
PAY_ERR_CTRA_REJ	-27

**SCHEDULE 5**  
**REGISTRATION FORM**

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**POS**

Please refer to Appendix 5-1

**PORTAL**

Please refer to Appendix 5-2

**APPENDIX 5-1 : MERCHANT REGISTRTRATION FORM**

<b>IPS SDN BHD</b>		<b>PURCHASE TERMINAL INSTALLATION RECORD</b>			<b>Form:DEF0019</b>
<b>SECTION 1: PREPARATION BY VENDOR AND BANK</b>					
TERMINAL S/N	TERMINAL ID	CSM S/N	CSM ID	MODEM S/N	
CHECKED BY (BANK)			VERIFY OK BY (IPS SDN BHD)		
<b>SECTION 2: MERCHANT DETAIL BY BANK</b>					
Business Name (ROC)			Business Type		
Account No			Phone		
Contact Name			Fax		
Address			Merchant Discount (%)		
Confirmed by			Post Code		
	Signature				
	Name				
<b>SECTION 3: DATA ENTRY ON SYSTEM BY IPS SDN BHD</b>					
Authorised by			Date entry by		
Signature			Signature		
Date			Date		
<b>SECTION 4 : INSTALLATION, COMMISIONING AND TRAINING BY BANK</b>					
Installation Type	: <input type="checkbox"/> NEW				
	: CHANGE <input type="checkbox"/> MERCHANT <input type="checkbox"/> TERMINAL <input type="checkbox"/> CSM <input type="checkbox"/> ACCOUNT				
Terminal Installed	<input type="checkbox"/> Yes <input type="checkbox"/> No		Remarks	Initial:	
Terminal Tested	Purchase <input type="checkbox"/> Yes <input type="checkbox"/> No		Remarks	Initial:	
	Collection <input type="checkbox"/> Yes <input type="checkbox"/> No		Remarks	Initial:	
Merchant Trained	<input type="checkbox"/> Yes <input type="checkbox"/> No		Remarks	Initial:	
Commision Date			Remarks	Initial:	
<b>SECTION 5 : EQUIPMENT DELIVERED/INSTALLED BY VENDOR</b>					
<b>DESCRIPTION</b>		<b>QTY</b>	<b>SERIAL NUMBER IF APPLICABLE</b>		
Modem Power Supply			<input type="checkbox"/>		
Power Cable and Telephone Cable for Modem					
Connecting Cable for Modem and Terminal					
Terminal User Manual and Quick Reference Guide					
Marketing Merchandising Material					
<b>SECTION 6: ACKNOWLEDGEMENT</b>					
<b>Installation Supervisor</b>			<b>Merchant</b>		
Signature:			Signature:		
Print Name:			Print Name:		
Date:			Date:		



## SCHEDULE 6 EDC TERMINAL OPERATION MANUAL

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### PURPOSE

1.1 MEPSCASH is electronic cash (e-Cash) that could be topped up/stored in the smart chip that is incorporated **MyKad** and **ATM cards** of the following financial institutions, bearing the MEPSCASH logo:

- (i) Affin Bank
- (ii) Alliance Bank
- (iii) AmBank
- (iv) Bank Muamalat
- (v) Bank Islam
- (vi) CIMB Bank
- (vii) Hong Leong Bank
- (viii) Maybank
- (ix) Public Bank
- (x) RHB Bank

1.2 The **e-Cash can be topped up into the ATM cards** at more than 6,000 ATMs nationwide by selecting the “Other Transactions” and followed by “MEPSCASH Loading” menus.

The amount of e-Cash topped into the ATM card is deducted online by the ATM from the cardholder’s savings/current account.

1.3 For **MyKad (as well as the ATM card), e-Cash top up can be done using the EDC Terminal** and payment will be with physical cash.

1.4 This document describes on how to operate the Electronic Data Capture (EDC) Terminal for MEPSCASH transactions with regards to:

- (i) MEPSCASH Payment (purchases made paid with MEPSCASH)/ Bayaran MEPSCASH (pembelian dibayar dengan MEPSCASH)
- (ii) MEPSCASH Loading (loading of MEPSCASH paid with physical cash over the counter)/ Tambahnilai MEPSCASH (tambahnilai MEPSCASH di bayar dengan wang tunai)
- (iii) Collection of the MEPSCASH Payment by the MEPSCASH System at end of the day/ Mengumpul Bayaran MEPSCASH ke Sistem MEPSCASH dipenghujung hari.

## MEPSCASH PAYMENT

- 2.1 MEPSCASH Payment is an **offline** transaction, meaning that the EDC Terminal **need not** be connected to the telephone line to process the MEPSCASH Payment.

Bayaran MEPSCASH ialah transaksi secara “**offline**”, bermakna Terminal EDC **tidak perlu** disambungkan ke talian telefon untuk memproses Bayaran MEPSCASH.

- 2.2 The guide to process MEPSCASH Payment below is with regards to EDC Terminal Model Axalto MagIC M5100.

Cara memproses Bayaran MEPSCASH yang berikut adalah untuk Terminal EDC Model Axalto MagIC M5100.

<ul style="list-style-type: none"> <li>• Insert the ATM card or MyKad into the card slot.</li> <li>• The screen will display “*Appl Choice 1. Proton Loading 2. MEPS e-Cash”</li> <li>• Press F3 button to select MEPS e-Cash.</li> <li>• Press the “Enter” button.</li> </ul>		<ul style="list-style-type: none"> <li>• Masukkan kad ATM atau MyKad ke dalam slot kad.</li> <li>• Skrin akan memaparkan “Appl Choice 1. Proton Loading 2. MEPS e-Cash”</li> <li>• Tekan butang F3 untuk memilih MEPS e-Cash.</li> <li>• Tekan butang “Enter”.</li> </ul>
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<ul style="list-style-type: none"> <li>• The screen will display “Debit and the MEPSCASH balance available in the card” (example RM61.99)</li> <li>• Key in the amount of MEPSCASH Payment (example RM10.00) if there is sufficient balance in the card.</li> <li>• Press the “Enter” button.</li> </ul>		<ul style="list-style-type: none"> <li>• Skrin akan memaparkan “Debit and MEPSCASH balance available in the card” (contoh RM61.99).</li> <li>• Masukkan jumlah Bayaran MEPSCASH (contoh RM10.00) sekiranya kad mempunyai baki yang cukup.</li> <li>• Tekan butang “Enter”.</li> </ul>
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<ul style="list-style-type: none"> <li>• The screen will display the amount of MEPSCASH Payment to be deducted (Example RM10.00)</li> <li>• Press “Enter” button to process the payment or “Cancel” button if not to process.</li> </ul>		<ul style="list-style-type: none"> <li>• Skrin akan memaparkan jumlah Bayaran MEPSCASH (Contoh RM10.00) yang akan ditolak.</li> <li>• Tekan butang “Enter” untuk memproses bayaran atau butang “Cancel” untuk tidak memproses.</li> </ul>
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<ul style="list-style-type: none"> <li>• Once the MEPSCASH Payment is successfully processed, the EDC Terminal will generate the MEPSCASH Payment receipt in 2 copies by pressing the "Enter" button.</li> <li>• The receipt will show the MEPSCASH Payment amount and the remaining balance of MEPSCASH in the card (example RM51.99)</li> <li>• 1 copy of the receipt is given to the customer while the other copy is retained by the cashier.</li> </ul>		<ul style="list-style-type: none"> <li>• Apabila Bayaran MEPSCASH Berjaya diproses, Terminal EDC akan mengeluarkan 2 salinan resit Bayaran MEPSCASH dengan menekan butang "Enter".</li> <li>• Resit akan memaparkan amaun Bayaran MEPSCASH dan baki MPSCASH yang masih di dalam kad (contoh RM51.99)</li> <li>• 1 salinan resit diberikan kepada pelanggan dan yang satu lagi disimpan oleh juruwang.</li> </ul>
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**At the end of day, all the MEPSCASH Payments will be collected by the MEPSCASH System (refer to paragraph 4).**

**Di penghujung hari, kesemua Bayaran MEPSCASH akan dikumpulkan oleh Sistem MEPSCASH (rujuk perenggan 4).**

**MEPSCASH LOADING**

3.1 MEPSCASH Loading is an **online** transaction, meaning that the EDC Terminal **must be** connected to the telephone line to process the MEPSCASH Loading.

As it is an online transaction, there are **no further steps to collect the MEPSCASH Loading** by the MEPSCASH System.

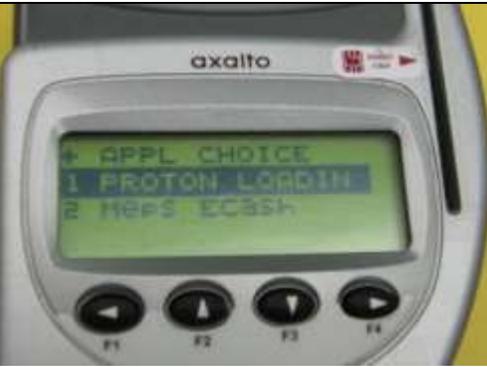
Tambahnilai MEPSCASH ialah transaksi secara “**online**”, iaitu Terminal EDC **perlu** disambungkan ke talian telefon untuk memproses Tambahnilai MEPSCASH.

Bagi transaksi secara online, **tiada langkah-langkah tambahan untuk mengumpul Tambahnilai MEPSCASH** oleh Sistem MEPSCASH.

3.2 The guide to process MEPSCASH Loading below is with regards to EDC Terminal Model Axalto MagIC M5100.

Cara memproses Tambahnilai MEPSCASH yang berikut adalah untuk Terminal EDC Model Axalto MagIC M5100.

<ul style="list-style-type: none"> <li>• Accept the cash amount from the customer for the MEPSCASH Loading transaction (Example RM10.00).</li> <li>• Press the “Menu” button twice.</li> <li>• The screen will display “ Main Menu Mer Sys App Fct”</li> <li>• Press F3 button to select “App”.</li> </ul>		<ul style="list-style-type: none"> <li>• Terima wang tunai dari pelanggan untuk transaksi Tambahnilai MEPSCASH (Comtoh RM10.00).</li> <li>• Tekan butang “Menu” dua kali.</li> <li>• Skrin akan memaparkan “Main Menu Mer Sys App Fct”</li> <li>• Tekan butang F3 untuk memilih “App”.</li> </ul>
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<ul style="list-style-type: none"> <li>• The screen will display “ Appl Choice Proton Loading MEPS e-Cash”</li> <li>• Press the “Enter” button.</li> </ul>		<ul style="list-style-type: none"> <li>• Skrin akan paparkan “Appl Choice Proton Loading MEPS e-Cash”</li> <li>• Tekan butang “Enter”.</li> </ul>
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<ul style="list-style-type: none"> <li>• The screen will display “English Menu 1. Retail Menu 2. Technical Menu 3. Language”</li> <li>• Press the “Enter” button.</li> </ul>		<ul style="list-style-type: none"> <li>• Skrin akan memaparkan “English Menu 1. Retail Menu 2. Technical Menu 3. Language”</li> <li>• Tekan butang “Enter”.</li> </ul>
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<ul style="list-style-type: none"> <li>• The screen will display “Sel. Oper. (OK) Autoload”</li> <li>• Press the “Enter” button.</li> </ul>		<ul style="list-style-type: none"> <li>• Skrin akan memaparkan “Sel. Oper. (OK) Autoload”</li> <li>• Tekan butang “Enter”.</li> </ul>
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<ul style="list-style-type: none"> <li>• The screen will display “Insert Card Please”.</li> <li>• Insert the ATM card or MyKad into the card slot.</li> </ul>		<ul style="list-style-type: none"> <li>• Skrin akan memaparkan “Insert Card Please”.</li> <li>• Masukkan kad ATM atau MyKad ke dalam slot kad.</li> </ul>
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<ul style="list-style-type: none"> <li>• The MEPSCASH available balance will be displayed (example RM51.99).</li> <li>• Press the “Enter” button.</li> </ul>		<ul style="list-style-type: none"> <li>• Baki MEPSCASH dalam kad akan dipaparkan (contoh RM51.99).</li> <li>• Tekan butang “Enter”.</li> </ul>
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<ul style="list-style-type: none"> <li>• The screen will display the “Min Value and Max Value” amounts i.e the minimum (RM10.00) or maximum MEPSCASH amount (example RM1,948.01 as card balance is RM51.99) that could be added into the card.</li> <li>• Press the “Enter” button.</li> </ul>		<ul style="list-style-type: none"> <li>• Skrin akan memaparkan nilai “Min Value and Max Value” iaitu amaun minima (RM10.00) atau maksima MEPSCASH (contoh RM1,948.01 kerana baki dikad ialah RM51.99) yang boleh ditambah ke dalam kad.</li> <li>• Tekan butang “Enter”.</li> </ul>
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<ul style="list-style-type: none"> <li>• The screen will display “Enter Amount”</li> <li>• Key in the amount of MEPSCASH Loading (example RM10.00)</li> <li>• Press the “Enter” button</li> </ul>		<ul style="list-style-type: none"> <li>• Skrin akan memaparkan “Enter Amount”</li> <li>• Masukkan amaun Tambahnilai MEPSCASH (contoh RM10.00)</li> <li>• Tekan butang “Enter”.</li> </ul>
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<ul style="list-style-type: none"> <li>• The screen will display “Please confirm” for the amount of MEPSCASH Loading.</li> <li>• Press the “Enter” button if the amount is correct.</li> </ul>		<ul style="list-style-type: none"> <li>• Skrin akan memaparkan “Please confirm” bagi amaun Tambahnilai MEPSCASH tersebut.</li> <li>• Tekan butang “Enter” jika amaun adalah betul .</li> </ul>
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<ul style="list-style-type: none"> <li>When the MEPSCASH Loading transaction is being processed, the screen will display "Loading Request" and then "Loading in Progress Dialing".</li> </ul>		<ul style="list-style-type: none"> <li>Apabila transaksi Tambahnilai MEPSCASH diproses, skrin akan memaparkan "Loading Request" dan kemudiannya "Loading in Progress Dialing".</li> </ul>
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<ul style="list-style-type: none"> <li>Once the transaction has been processed, the screen will display "Transaction successful" and the new balance of MEPSCASH in the card.</li> <li>1 copy of the receipt is generated and given to the customer</li> </ul>		<ul style="list-style-type: none"> <li>Apabila transaksi berjaya diproses, skrin akan paparkan "Transaction successful" dan baki baru MEPSCASH di dalam kad.</li> <li>1 salinan resit dikeluarkan untuk diberi kepada pelanggan.</li> </ul>
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**COLLECTION OF MEPSCASH PAYMENT TO MEPSCASH SYSTEM**

4.1 The Collection of MEPSCASH Payment is an **online** transaction, meaning the EDC Terminal **must** be connected to the telephone line.

Transaksi Mengumpul Bayaran MEPSCASH ialah secara **online**, bermakna Terminal EDC **mesti** disambungkan ke talian telefon.

4.2 The guide to process Collection of MEPSCASH Payment below is with regards to EDC Terminal Model Axalto MagIC M5100.

Cara memproses Mengumpul Bayaran MEPSCASH yang berikut adalah untuk Terminal EDC Model Axalto MagIC M5100.

<ul style="list-style-type: none"> <li>• Press the “Menu” button twice.</li> <li>• The screen will display “ Main Menu Mer Sys App Fct”</li> <li>• Press F3 button to select “App”.</li> </ul>		<ul style="list-style-type: none"> <li>• Tekan butang “Menu” dua kali.</li> <li>• Skrin akan memaparkan “ Main Menu Mer Sys App Fct”</li> <li>• Tekan butang F3 untuk memilih “App”.</li> </ul>
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<ul style="list-style-type: none"> <li>• The screen will display “Appl Choice 1. Proton Loading 2. MEPS e-Cash”</li> <li>• Press F3 button to select “MEPS e-Cash”.</li> <li>• Press the “Enter” button.</li> </ul>		<ul style="list-style-type: none"> <li>• Skrin akan paparkan “Appl Choice 1. Proton Loading 2. MEPS e-Cash”</li> <li>• Tekan butang F3 untuk pilih “MEPS e-Cash”.</li> <li>• Tekan butang “Enter”.</li> </ul>
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<ul style="list-style-type: none"> <li>The screen will display “English Menu”             <ol style="list-style-type: none"> <li>Query Balance</li> <li>Print Receipt</li> <li>Print Total</li> <li>Collection”</li> </ol> </li> <li>Press F3 button to select item 4. Collection.</li> <li>Press the “Enter” button.</li> </ul>		<ul style="list-style-type: none"> <li>Skrin memaparkan “English Menu”             <ol style="list-style-type: none"> <li>Query Balance</li> <li>Print Receipt</li> <li>Print Total</li> <li>Collection”</li> </ol> </li> <li>Tekan butang F3 untuk pilih item 4. Collection.</li> <li>Tekan butang “Enter”</li> </ul>
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<ul style="list-style-type: none"> <li>The EDC Terminal will process the MEPSCASH Payment Collection transaction.</li> <li>The screen will display “Collection Processing” and then “Collection Dialing”</li> </ul>		<ul style="list-style-type: none"> <li>Terminal EDC akan memproses transaksi Mengumpul Bayaran MEPSCASH.</li> <li>Skrin memaparkan “Collection Processing” dan kemudiannya “Collection Dialing”</li> </ul>
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<ul style="list-style-type: none"> <li>The MEPSCASH Payment Collection Receipt will be generated in 1 copy for the cashier to keep.</li> </ul>		<ul style="list-style-type: none"> <li>1 salinan Resit Mengumpul Bayaran MEPSCASH dikeluarkan untuk simpanan juruwang.</li> </ul>
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**SCHEDULE 7**

## SCR TERMINAL OPERATION MANUAL

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### PURPOSE

1.1 MEPSCASH is electronic cash (e-Cash) that could be topped up/stored in the smart chip that is incorporated in **MyKad** and **ATM cards** of the following financial institutions, bearing the MEPSCASH logo:

- (i) Affin Bank
- (ii) Alliance Bank
- (iii) AmBank
- (iv) Bank Muamalat
- (v) Bank Islam
- (vi) CIMB Bank
- (vii) Hong Leong Bank
- (viii) Maybank
- (ix) Public Bank
- (x) RHB Bank

1.2 The **e-Cash can be topped up into the ATM cards** at more than 6,000 ATMs nationwide by selecting the “Other Transactions” and followed by “MEPSCASH Loading” menus.

The amount of e-Cash topped into the ATM card is deducted online by the ATM from the cardholder’s savings/current account.

1.3 For **MyKad (as well as the ATM card), e-Cash top up can be done using the EDC Terminal** and payment will be with physical cash.

1.4 This document describes on how to operate the Smart Card Reader for MEPSCASH transactions over the Internet and/or web based Point of sale system (POS) with regards to:

- (i) MEPCASH Payment (purchases made paid with MEPSCASH)/Bayaran MEPSCASH (pembelian dibayar dengan MEPSCASH)

## MEPSCASH PAYMENT

2.1 MEPSCASH Payment over the Internet is an **online** transaction.

Bayaran MEPSCASH di Internet ialah transaksi secara “**online**”.

<ul style="list-style-type: none"> <li>• Connect the Smart Card Reader to the PC (USB port).</li> <li>• Upon the PC detecting the Smart Card Reader, install the Smart Card Reader Program using the CD provided by following the instructions therein.</li> </ul>		<ul style="list-style-type: none"> <li>• Sambungkan Pembaca Kad Pintar ke PC (port USB).</li> <li>• Apabila PC mengesan Pembaca Kad Pintar, muat turun Program Pembaca Kad Pintar menggunakan CD yang disediakan dan ikut arahan seterusnya.</li> </ul>
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<ul style="list-style-type: none"> <li>• Log into the website of the entity (home user) for the Payment Page or the web based Payment Page/ Point of Sale system (by the cashier for over the counter payment by the customer).</li> <li>• Select the MEPSCASH Payment icon </li> <li>• Complete the details and the amount of payment as required by the Payment Page and click for the next step.</li> <li>• Insert the ATM card or MyKad into the Smart Card Reader slot.</li> </ul>	 	<ul style="list-style-type: none"> <li>• Masuk ke laman web entiti (pengguna internet rumah) untuk Muka Bayaran entiti ataupun ke Muka Bayaran web/ sistem Jualan web (oleh juruwang bagi bayaran di kaunter oleh pelanggan).</li> <li>• Pilih ikon Bayaran MEPSCASH </li> <li>• Kemaskini data dan amaun bayaran seperti diperlukan di Muka Bayaran dan klik untuk langkah seterusnya.</li> <li>• Masukkan kad ATM atau MyKad ke dalam slot Pembaca Kad Pintar.</li> </ul>
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<ul style="list-style-type: none"> <li>• The Payment Page will display the details for confirmation.</li> <li>• The MEPSCASH available balance in the ATM card or MyKad will also be displayed on screen.</li> <li>• Click for the next step if information is correct.</li> </ul>		<ul style="list-style-type: none"> <li>• Muka Bayaran akan memaparkan maklumat untuk pengesahan.</li> <li>• Baki MEPSCASH yang terkandung dalam kad ATM atau Mykad akan tertera di skrin.</li> <li>• Klik untuk langkah seterusnya sekiranya maklumat adalah betul.</li> </ul>
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<ul style="list-style-type: none"> <li>• The screen will display a note to ensure that the Smart Card Reader is connected to the PC and the ATM card or MyKad is inserted into the card reader's slot.</li> <li>• Click the "OK" button.</li> <li>• The screen will then display that the MEPSCASH Payment is being processed.</li> </ul>		<ul style="list-style-type: none"> <li>• Skrin akan memaparkan nota untuk memastikan Pembaca Kad Pintar disambung ke PC dan kad ATM atau MyKad dimasukkan ke slot pembaca kad.</li> <li>• Klik butang "OK".</li> <li>• Skrin kemudiannya memaparkan Bayaran MEPSCASH sedang diproses.</li> </ul>
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<ul style="list-style-type: none"> <li>• Once the MEPSCASH</li> </ul>		<ul style="list-style-type: none"> <li>• Apabila Bayaran MEPSCASH telah</li> </ul>
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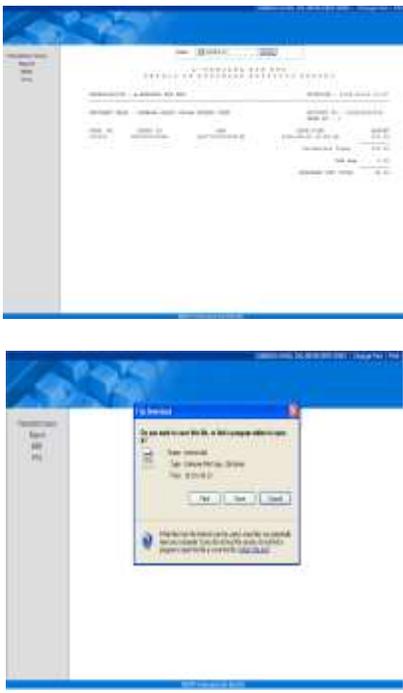
<p>Payment has been successfully processed, the screen will display the unique transaction ID number.</p> <ul style="list-style-type: none"> <li>The internet home user/cashier may print the page details as a receipt.</li> </ul>		<p>berjaya diproses, skrin akan memaparkan nombor unik ID transaksi.</p> <ul style="list-style-type: none"> <li>Pengguna internet di rumah atau juruwang boleh mencetak butiran di muka skrin sebagai resit.</li> </ul>
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### MEPSCASH TRANSACTION DETAILS – FOR ENTITY/MERCHANT

3.1 The MEPSCASH Payments transaction details can be viewed and printed by the entity/merchant. The log-in ID to the MEPSCASH system shall be managed by the entity/merchant via its authorised/nominated personnel.

Transaksi-transaksi Bayaran MEPSCASH boleh dilihat dan dicetak oleh entiti/pekedai. ID kemasukan ke sistem MEPSCASH adalah ditadbir oleh entiti/pekedai melalui kakitangan yang diluluskan/dilantik.

<ul style="list-style-type: none"> <li>• Enter the User ID and Password.</li> </ul>		<ul style="list-style-type: none"> <li>• Masukkan Pengguna ID dan Password.</li> </ul>
<ul style="list-style-type: none"> <li>• Select the date of the MEPSCASH transactions for viewing/printing.</li> </ul>		<ul style="list-style-type: none"> <li>• Pilih tarikh transaksi MEPSCASH yang mahu dilihat/cetak.</li> </ul>

<ul style="list-style-type: none"><li>• The screen will display the MEPSCASH transaction details for the day.</li> <li>• The MEPSCASH report can then be printed or saved in the PC.</li></ul>		<ul style="list-style-type: none"><li>• Skrin akan memaparkan butiran transaksi MEPSCASH bagi hari tersebut.</li> <li>• Laporan MEPSCASH boleh dicetak atau disimpan di PC.</li></ul>
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## **SCHEDULE 8 HELPDESK**

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### **1.0 Problem Reporting**

The Government of Malaysia shall report and notify IPS of any problem by telephone, e-mail, fax or in writing. The details are as follows:

HELP DESK : 03 2058 4710  
Email : [helpdesk@mepscash.com](mailto:helpdesk@mepscash.com)

### **2.0 Problem Reporting Method:**

- 2.1 The Problem Report will be sent by e-mail or fax to IPS (with a confirmation copy by e-mail or fax).
- 2.2 The Problem Report shall contain the following details:
- (a) Program Problem Abstract number: reference number;
  - (b) Priority: Critical, High, Low;
  - (c) Description: A short description to define and identify the problem;
  - (d) Date and Time: The date and time the problem is reported;
  - (e) Reported by: The name or initials of the person in reporting the problem;
  - (f) Cause of the problem occurred;
  - (g) Details of the parameters;
  - (h) Details of the input and output;
  - (i) Error messages;
  - (j) Any available print out; and
  - (k) System's status, such as system hang.