



**mPay Service
Merchant Setup Guide
Version 2.2.0**

**Merchant Setup Guide
Administrative Merchant Action
(AMA)**

Java (1.5/1.6 Version)



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The assurance of quality is fundamental to all work undertaken by mPay and its suppliers, and is practised by all staff members in their daily activities for the company.



Control Information

Item #	Key	Value
1	Target Audience	Both
2	Original Author	Se
3	Distribution List	



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Assumptions

AS #	Description
AS01	Using standard-based HTTPS channel, Merchant WebStore Server connects to mPay service to send MCRQ and receive MCRP.

Project Information

Item	Key	Description	Remarks
Section A) Filled by User			
A01	User Name		
		<More contacts, if any>	
Section B) Filled by Consultant			
B01	Consultant	Tel: (852) 3590 8136 Fax: (852) 3590 4179	



Overview

mPay is a global Internet payment solution operated by mPay Limited. Selling at a distance requires a comprehensive, flexible, reliable and secure payment solution. mPay Internet payment service meets these requirements. mPay is designed to provide a proven and secure payment service to meet your business needs on the Internet.

mPay Internet payment service offers a secure channel over which a merchant merchant client request message (MCRQ) is transmitted and processed. Upon process completion, mPay will return a digital receipt (MCRP) with an approval code. In this guide, the mPay Administrative Merchant Action for Java (1.5/1.6 version) is discussed.



Installation Procedure

1. Modified the sample code to fit with your environment (See Appendix B to E)
2. Place the modified files to an JSP server to test the result. (Note: you can use the modified sample codes directly OR migrate the sample codes to your system to test the payment service.)



Notice

Information (To Merchant)

Terms	Definition
Mpay AMA API file	Mpay AMA API file
mPay_Enquiry_Test_URL	The mPay Enquiry URL in testing environment (used in EnquirySingleResult.jsp)
mPay(_Enquiry_Prod_URL	The mPay Enquiry URL in production environment (used in EnquirySingleResult.jsp)

Note:

1. To ensure the security level of mPay service, the JSP pages (with Java classes for encryption and decryption) are needed. Please use our AMA API(MerchantClient.jar) together with Payment API(MerchantClient.jar) to perform the required tasks.



Enquiry Single Transaction

Merchant Client Request Messge (Merchant to mPay)

Name	Definition	Allow Empty
merchantid	Merchant ID provided by mPay.	N
merchant_tid	Merchant Terminal ID provided by mPay.	N
ordernum	Order number of transaction for inquiry. The value should be same as the order number used at payment process.	N

Merchant Client Response Messge (mPay to Merchant)

Name	Type	Definition
payment_method	String	Payment method of this transaction in mPay.
transaction_id	String	Transaction ID at mPay.
merchant_orderno	String	Merchant order number of transaction. The value should same as that passed in the request message.
merchant_dt	Timestamp	Merchant date time of transaction send to mPay in payment process.
settle_dt	Timestamp	Settlement date time of the transaction.
currency	String	Payment currency code of transaction.
amount	Double	Payment amount of transaction.
respcode	String	Response code which represent the payment status of transaction. See Appendix in Payment Setup Guide for further description. Initial status of transaction is "1A1". Transaction is being processed or no response from Financial Institution side will keep as "1A1".
approvalcode	String	Authentication code provided by Financial Institution.
status	String	Status of transaction in mPay. Success - Transaction is success Fail - Transaction fail, pending or no response from Financial Institution Void - Transaction is voided Refund - Transaction is refunded



Appendix A - Administrative Merchant API package content description

Following list of additional Sample programs and API files.

File	Description
EnquirySingle.jsp	Sample jsp file that simulate the enquiry process. It contains information required and post the parameters to EnquirySingleResult.jsp
EnquirySingleResult.jsp	Sample jsp file that call the enquiry function and retrieve the result
WEB-INF/lib/MerchantAdmin.jar	mPay API jar file that provide administrative merchant functions.

Following list of the Sample programs and API files included in the Payment side.

File	Description
WEB-INF/lib/bcprov-jdk.jar	Jar file that provide security feature.
WEB-INF/lib/MerchantClient.jar	mPay API jar file that provide encrypt, decrypt , generate signature, verify signature, get certificate serial features.
WEB-INF/lib/MerchantAdmin.jar	mPay API jar file that provide administrative merchant functions.

Following describe the 3 security related files included in the Payment side.

File	Description
merchant.p12	Merchant keystore file (pkcs12 format) which store Merchant private key and Merchant client certificate.
server.crt	mPay server certificate(X509 format).
password.txt	Password of merchant keystore file.



Appendix B- Sample JSP Program: EnquirySingle.jsp

Purpose of EnquirySingle.jsp is a sample page for calling the EnquirySingleResult.jsp. It simulates the enquiry process at merchant side which contains all the required information. Please noted that the fields are not required to be shown in the web page.

The page should contain the following attributes in the form:

(Note: In order to ensure the security level, do not pass the parameters to the SendMsg.jsp in the form of calling “EnquirySignleResult.jsp?merchantid=...”. Please put your parameters as HTML form attributes and submit the form through “POST” method)

```
<%@ page language="java" contentType="text/html; charset=UTF-8"
    pageEncoding="UTF-8"%>
<%@page session="true"
    import="java.text.*,
        java.util.*"
%>
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN">
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=BIG5">
<title>mPay Sample Page - Enquiry Single Transaction</title>
</head>
<body>
<%
    String merchantid = "<Merchant ID>";
    String merchant_tid = "<Terminal ID>";
    String ordernum = "<Order Number>";
%>
<form name=form1 action="EnquirySingleResult.jsp" method="post">
<br>
<b>mPay Sample Page - Enquiry Single Transaction</b><br>
<table>
<tr>
<td>Merchant ID:</td>
<td><input type="text" name="merchantid" value="<%=
merchantid %>" /></td>
</tr>
<tr>
<td>Terminal ID:</td>
<td><input type="text" name="merchant_tid" value="<%=
merchant_tid %>" /></td>
</tr>
<tr>
<td>Order Number:</td>
<td><input type="text" name="ordernum" value="<%= ordernum
%>" /></td>
</tr>
</table>
<input type="submit" name="submitbtn" value="Enquiry">
<input type="reset" name="reset" value="Cancel" />
</form>
</body>
</html>
```

The texts in **blue** color should be changed according to your environment.



Appendix C - Sample JSP Program: EnquirySingleResult.jsp

Purpose of EnquirySingleResult.jsp is to send the enquiry request to mPay enquiry page and retrieve the transaction information.

```

<%@ page language="java" contentType="text/html; charset=UTF-8"
    pageEncoding="UTF-8" session="true"
    import="com.mobiletech.mpay.client.admin.Enquiry,
        com.mobiletech.mpay.client.admin.EnquiryHandler"
%>
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN">
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
<title>mPay Sample Page - Enquiry Single Transaction Result</title>
</head>
<body>
    <%
        String merchantid = request.getParameter("merchantid");
        String merchant_tid = request.getParameter("merchant_tid");
        String ordernum = request.getParameter("ordernum");

        String certserial = "";

        String mpayEnquiryURL = "<mPay_Enquiry_URL>";
        String serverCertPath = "<cert_directory>/server.crt";
        String merchantCertPath = "<cert_directory>/merchant.pl2";
        String certPassword = "<Certificate_Password>";

        EnquiryHandler enqHandler = new EnquiryHandler();
        Enquiry enquiry = null;
        try {
            enquiry = enqHandler.doEnquirySingle(merchantid, merchant_tid,
                ordernum,
                mpayEnquiryURL, serverCertPath, merchantCertPath,
                certPassword);
        } catch (Exception ex){
            System.out.println(ex);
        }
        finally
        {
        }
    %>
    <form name="form1">
        <br>
        <b>mPay Sample Page - Enquiry Single Transaction Result</b><br>
        <%
            if (enquiry == null) {
                <%>
                No transaction found with merchant order number: <%= ordernum
            %>!
            <%
            } else {
                <%>
                <table>
                    <tr>
                        <td>Payment Method:</td>
                        <td><%= enquiry.getPayment_method() %></td>
                    </tr>
                </table>
            %>
        %>
    </form>

```

```

</tr>
<tr>
  <td>Merchant Order No:</td>
  <td><%= enquiry.getMerchant_orderno() %></td>
</tr>
<tr>
  <td>Merchant Date:</td>
  <td><%= enquiry.getMerchant_dt() %></td>
</tr>
<tr>
  <td>Settle Date:</td>
  <td><%= enquiry.getSettle_dt() %></td>
</tr>
<tr>
  <td>Currency:</td>
  <td><%= enquiry.getCurrency() %></td>
</tr>
<tr>
  <td>Amount:</td>
  <td><%= enquiry.getAmount() %></td>
</tr>
<tr>
  <td>Response Code:</td>
  <td><%= enquiry.getRespcode() %></td>
</tr>
<tr>
  <td>Approval Code:</td>
  <td><%= enquiry.getApprovalcode() %></td>
</tr>
<tr>
  <td>Transaction Status:</td>
  <td><%= enquiry.getStatus() %></td>
</tr>
</table>
<%
}
%>
</form>
</body>
</html>

```

The texts in **blue** color should be changed according to your environment. The **parameters in red color** are result retrieved from mPay.

Note:

1. Please check the response code to identify if the transaction is successful or fail. (Refer to Appendix F of Payment Setup Guide).