Oracle® Retail MICROS Retail-J
Card Authorisation and Submission
Release 13.0

June 2015

ORACLE®

Oracle® Retail MICROS Retail-J Store Card Authorisation and Submission Release 13.0

Contents

Note: The rebranding for the latest version of this documentation set is in development as part of post MICROS acquisition activities. References to former MICROS product names may exist throughout this existing documentation set.

1.0   Card Transactions

Card transactions are subject to payment authorisation. Retail-J supports a number of authorisation interfaces including Micros EFT-Link. Retail-J supports most mainstream PEDs and many acquirers and territories. Certain contactless PEDs are supported from Retail-J 12.

Card submissions are made to an acquirer. Acquirers complete the transaction on receipt of a batch of transactions in a submission file.

Submission files contain payment card details and an amount to be credited or debited. Micros Retail-J supports submission information to the APACS 29 standard. Submissions are made regularly corresponding to the application's Sales Audit Sessions.

Submission data can only be taken from finalised Sales Audit sessions. Submission sessions can encompass several Sales Audit sessions. The card submission application enables individual card details to be corrected and new or missing ones to be added.

This document describes:

- Standard Retail-J Secure EFT functionality namely:

    — Configuration

    — Payment authorisation

    — Settlement

- Micros EFT-Link

Additional documents describe configuration to meet Payment Card Industry Data Security Standards (PCI DSS) for Retail-J Standard Secure EFT and Retail-J Ultra Secure EFT.

An overview of the standard Retail-J Secure EFT process is shown overleaf.

Retail-J (Secure EFT) Data Flow

Key

Coloured lines represent the type of data in transit as follows:
- Red represents encrypted or unencrypted Sensitive Authentication data or Cardholder data in Transit.
- Green represents data that is not considered Cardholder or Sensitive Authentication Data.

1 PED

2 Unencrypted Card Data

6 Store Operational Database

Encrypted Card Data

6 POS Operational Database

Encrypted Card Data — Capturing POS — Encrypted Card Data — Store Server

Confirmation/ Rejection

3

Encrypted Card Data

VPN

Encrypted Card Data

5

Online Authorisation Server

Estate Manager

Encrypted Card Data — **6** EM Operational Database

7 Unencrypted Card Data

Settlement File

Encrypted Card Data — **6** Audit Database

5 **4** Unencrypted Card Data

8

Secure Physical Network (X25)

Confirmation/ Rejection

Acquirer (Authorisation)

Acquirer (Settlement)

1. A card is read/swiped at the PED.

2. Unencrypted card data is sent to the capturing POS.

3. Encrypted card data is sent from the POS to the Online Authorisation Server.

4. Unencrypted card data is sent from the Online Authorisation Server to the acquirer using secure data level communication (VPN).

5. An authorisation response is sent back to the POS. This includes only the authorisation code with no PAN or Track data.

6. If the transaction is approved, the PAN is stored encrypted within the capturing POS, Store Server, Estate Manager Operational and Estate Manager Audit databases.

7. Encrypted settlement data is decrypted and an unencrypted settlement file produced.

8. The unencrypted settlement file is sent to the acquirer from the Estate Manager Server via a secure physical network (X25).

2.0 Card Extraction and Submission Process

To enable card submission, the Card Extraction and Submission Process must be configured. If operational submission is required, it must be configured with Operational Extract checked.

This process must be defined and configured even to run submission manually for testing.

- Manual Testing
- The *Submission Status* function can be used to test submission generation. This can create manual extract, output or submission jobs.
- Manual jobs present for a day will prevent automatic submission jobs being created, but new manual jobs will overwrite existing manual jobs.
- The progress of jobs can be viewed from the Job Management screen.

3.0 Configuration for Operational Database Submission

By default, card submissions are taken from the audit database. To set up card submission from the operational database instead:

1. All three database access sets (DEFAULT, AuditManager and CardSubmission) must be set to point to the operational database. This cannot be done via the *Access Sets Maintenance* page, but must be carried out using a command line utility.

   The existing database user name and password can be determined from the *Access Sets Maintenance* screen.

   Before proceeding, you should backup the access set files APPLICATION_HOME/data/Access.*.

   For example (for a SQL Server database):

   ```
   java com.retailJava.retailFoundationClasses.database.MakeAccessSet ALL.
   DB jdbc:microsoft:sqlserver://localhost:1433;SelectMethod=cursor;Data-
   base=;UID=sa;PWD= com.retailJava.retailFoundationClasses.data-
   base.MakeAccessSet ALL.DB jdbc:microsoft:sqlserver://
   localhost:1433;SelectMethod=cursor;Database=;UID=sa;PWD= AuditManager
   com.retailJava.retailFoundationClasses.database.MakeAccessSet ALL.DB
   jdbc:microsoft:sqlserver://localhost:1433;SelectMethod=cursor;Data-
   base=;UID=sa;PWD= CardSubmission
   ```

   For example (for an Oracle database):

   ```
   java com.retailJava.retailFoundationClasses.database.MakeAccessSet ALL.
   DB jdbc:oracle:oci8:@;uid=system;pwd=manager com.retailJava.retailFoun-
   dationClasses.database.MakeAccessSet ALL.DB jdbc:oracle:oci8:@;uid=sys-
   tem;pwd=manager AuditManager
   com.retailJava.retailFoundationClasses.database.MakeAccessSet ALL.DB
   jdbc:oracle:oci8:@;uid=system;pwd=manager CardSubmission
   ```

   The device ID (ALL.), organisation name (DB), user name (system), and password (manager) must be changed accordingly.

2. The database upgrade script must then be run to create the required tables.
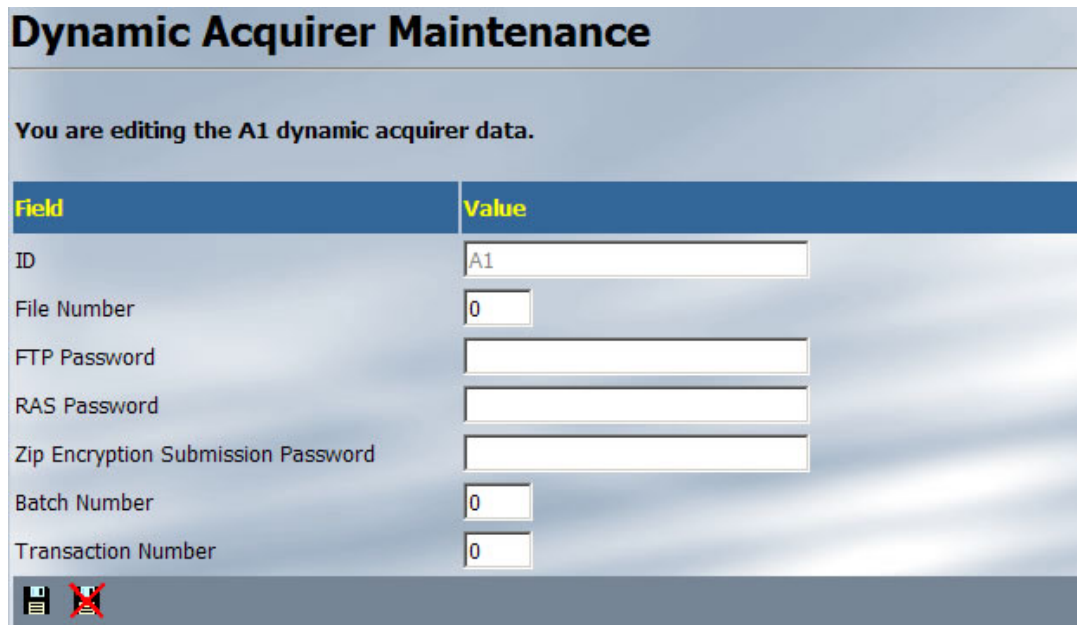
4.0 Configuration for Audit Database Submission

Where the operational database is being used for submissions as described in "Configuration for Operational Database Submission" on page 3, the application picks up acquirer settlement details from the operational database. Where settlement details are being extracted from the audit database, acquirer

submission details need to be supplied. The *Dynamic Acquirer Data* screen enables you to create, view, edit and remove the acquirer details required for submission from the audit database.

4.1   Dynamic Acquirer Data

The Dynamic Acquirer screen contains the acquirer details required for submission from the audit database.

Note, submissions should be sent over a secure (physical) network (for example X25).

The following information is maintained.

*   File Number (up to three digits)
*   FTP Password (up to 20 alphanumeric characters)
*   RAS Password
*   Zip Encryption Submission Password
*   Transaction Number
*   Batch Number

5.0   Authorisation Monitor

The Authorisation Monitor page enables you to view information about the current state of the central authorisation service. The authorisation service is responsible for obtaining card authorisation from the banks and passing the details back down to the store and terminals.

It shows the current requests for authorisation that have been received by the authorisation service. If there are no current authorisation requests, then this screen will be blank.

Authorisation Monitor

Authorisation Monitor shows information about the current state of the authorisation service.

Current outstanding requests are shown below.

Options	Msg No	TID	Type	Amount	Retries	Received	Resource Allocated	Sent	Total Time
-	12	22750000	CARD	£52.02	0	11:30:54	11:30:54	11:30:54	1
↶ ↻			View Statistics →	View Log →					

All current outstanding requests are displayed in a table with the following headings.

Option/Field	Description
Options	The actions you can perform on the outstanding requests.
Msg No	The message number of the outstanding request.
TID	The ID of the terminal which initiated the request.
Type	The type of the request.
Amount	The amount to be authorised.
Retries	The number of retries of the message.
Received	The time the request was received.
Resource Allocated	The time that the resource was allocated for the request.
Sent	The time the request was sent.
Total Time	The total time (in seconds) taken to process the request.
Back Icon	Click the Back icon to return to the Home page.
Refresh Icon	Click the Refresh icon to update the on-screen information.
View Statistics	Click the Next icon to view statistics
View Log	Click the Next icon to view the log

5.1   View Statistics

The Authorisation Monitor Statistics page enables you to view accumulated data about the authorisation service.

Authorisation Monitor Statistics

Authorisation Statistics shows accumulated data about the authorisation service.
Statistics for today are shown below.

Responses	Number	Minimum Time	Maximum Time	Average Time
Total	4	1.0	1.0	1.0
Authorised	4	1.0	1.0	1.0
Referred	0	0.0	0.0	0.0
Declined	0	0.0	0.0	0.0
Invalid requests	0	0.0	0.0	0.0
Comms Errors	0	0.0	0.0	0.0

Resettable statistics are shown below. Last reset: 11/02/04 11:39

Responses	Number	Minimum Time	Maximum Time	Average Time
Total	4	1.0	1.0	1.0
Authorised	4	1.0	1.0	1.0
Referred	0	0.0	0.0	0.0
Declined	0	0.0	0.0	0.0
Invalid requests	0	0.0	0.0	0.0
Comms Errors	0	0.0	0.0	0.0
↺ ↻		View Monitor ➡	View Log ➡	Reset Statistics ➡

There are two tables displayed. One shows the statistics for today, and the other shows cumulative resettable statistics and when they were last reset.

Each table shows the following details.

Option/Field	Description
Responses	The number of the various types of responses which occurred in response to a card authorisation request.
Number	The total number of a particular response.
Minimum Time	The minimum time taken to achieve the response.
Maximum Time	The maximum time taken to achieve the response.
Average Time	The average time taken to achieve the response.
Back Icon	Click the Back icon to return to the Home page.
Refresh Icon	Click the Refresh icon to update the on-screen information.
View Monitor	Click the Next icon to view the monitor.
View Log	Click the Next icon to view the log.
Reset Statistics	Click the Next icon to reset the statistics to zero and record the time of the reset

5.2   View Log

The Authorisation Monitor Log enables you to examine data held about requests sent to the authorisation service.

Authorisation Monitor Log

The credit authorisation log holds data about requests sent to the authorisation service.

Filter	Value	
Select Store		(All)
Enter Start Date/Time	13/08/08 (dd/mm/yy)	00:00 (hh:mm)
Enter End Date/Time	13/08/08 (dd/mm/yy)	23:59 (hh:mm)
Select a Request Type	(All)	
Select a Response Type	(All)	
Enter a Transaction Amount		
Enter an Authorisation Code		
Apply Filter		
Enter number of days to purge	10	

All credit authorisation log entries for the search criteria are shown below.

Options	Entry Date/Time	Device ID	TID	Req Type	Response	Amount	Auth Code
🔍	13/08/08 19:29	ALL.R1510.S01.T01	22750001	Card	Auth	£41.69	878222
🔍	13/08/08 16:47	ALL.R1510.S01.T01	22750001	Card	Auth	£26.11	708495

To filter the data displayed:

1. Begin typing the name of a store in the Select Store field. Alternatively, choose a store from the pop-up menu. The default is All.

2. Enter a start date in the first Enter Start Date/Time field. The default is today's date.

3. Enter a start time in the second Enter Start Date/Time field. The 00:00.

4. Enter an end date in the first Enter End Date/Time field. The default is today's date.

5. Enter an end time in the second Enter End Date/Time field. The 23:59.

6. Choose a request type from the Select a Request Type pop-up menu. The options available are: Card; Card Rvse; Cheque; ETopUp; ETopUp Rvse; RV Auth; RV Auth Rvse. The default is All.

7. Choose a response type from the Select a Response Type pop-up menu. The options available are: Auth; Refer; Decline; Error. The default is All.

8. If required, enter a Transaction Amount (up to 10 alphanumeric characters). Alternatively, leave the field blank.

9. If required, enter an Authorisation Code (up to 10 alphanumeric characters). Alternatively, leave the field blank.

10. Click the Search icon to filter the results. All credit authorisation log entries satisfying the input search criteria are then displayed in a table with the following headings.

Option/Field	Description
Options	The actions you can perform on the log entry, namely View.
Entry Date/Time	The date and time of the log entry.
Device ID	The ID of the device from which the request was initiated.
TID	The ID of the terminal where the transaction took place.
Req Type	The type of request, e.g. Card or Cheque etc.
Response	The type of response received.
Amount	The total amount of the transaction.
Auth Code	The authorisation code for the transaction.

11. Enter number of days to purge field and press the Return key to set the number of days until the next purge. The default is 10.

12. Click the *Remove* icon to purge the credit authorisation log immediately.

5.2.1 View Log Entry

This page enables you to view a particular log entry.

Authorisation Monitor Log

You are viewing a credit authorisation log entry created at 13/08/08 19:29

Field	Value
Request Type	Card
Response	Auth
Device ID	ALL.R1510.S01.T01
Terminal ID	22750001
Message Number	12
Is Logical Terminal ID	☐
Transaction Date	13/08/08 19:29
Retry Count	0
Transaction Amount	£41.69
Cashback Amount	£0.00
Card PAN	E60E2DB27067FEDF37CEDF12272E9A06
Merchant ID	21249872
Not Present	☐
Training Mode	☐
Authorisation Code	878222
Display Message	AUTH CODE: 878222
Acquirer Response Code	0
Response Time	1.0

The following information is shown.

Option/Field	Description
Request Type	The type of request, for example Card or Cheque and so on.
Response	The response received to the request, for example Authorised, Declined and so on.
Device ID	The ID of the device from where the request was made.
Terminal ID	The ID of the terminal from where the request was made.
Message Number	The number of the message.
Is Logical Terminal ID	When this check box is selected it is a logical terminal ID.
Transaction Date	The date and time of the transaction.
Retry Count	This indicates a count of the number of retries.
Transaction Amount	The amount of the transaction.
Cashback Amount	The amount of cash, if any, given out in the transaction.
Card PAN	The card number for which the request was made.
Merchant ID	The ID of the merchant associated with the card number.
Not Present	When this check box is selected the cardholder was not present.
Training Mode	When this check box is selected the terminal was in training mode.
Authorisation Code	The authorisation code for the transaction.
Display Message	The message, if any, returned by the authorisation host when an online authorisation was attempted. It can sometimes be displayed to the POS user, depending on the type of referral.
Acquirer Response Code	The response code of the acquirer.
Response Time	The total time, (in seconds, from when the request was sent to when the response was received.

6.0   Settlement Submission Status

The Submission Status page enables you to view submission history, edit card data and resubmit corrected data. All existing audit sessions are displayed in a table. This is specifically the information on the credit cards used, which is sent to the bank. The process of submission involves extracting the card data from finalised audit session, outputting individual APACS29 files for each Acquirer and then submitting each of these files, using FTP file transfer, to each Acquirer's host computer.

Submission Status

Submission Status will allow you to view submission history, edit card data, and resubmit corrected data.

All existing submission sessions are shown below.

Options	Session ID	Status	Start Date	End Date
✍️📋	1	Closed	8/13/08 9:55 PM	8/14/08 2:10 PM

Submission Processes	
Extract	📄
Output	⚙️
Submit	📝

All existing submission sessions are displayed in a table with the following headings.

Option/Field	Description
Options	The actions you can perform on an existing audit session, for example Edit, History.
Session ID	The ID of the session.
Status	The status of the existing submission sessions. Open and closed sessions remain open until successfully output and sent.
Start Date	The start date and time of each submission session.
End Date	The end date and time of each submission session.

- Click the *Edit* icon to edit a session.

- Click the *History* icon to view the session history.

- Click the following icons to manually start one of three submission processes.

  — *Output*

    This will initiate a background task which will look at the extracted submission data and convert it into a special text format as required by the bank (s). There will be separate files for each of the various acquirers. The files required are set up during the configuration process. The location of the created files and naming convention is generally; `APPLICATION_HOME/CardData/ORGANISATION/FILENAMEn.dat`, where the filename includes an incrementing number. When the file has been submitted, the extension changes from .dat to .old. The file is of fixed format, as required by the relevant acquirer. It contains details of the store, card numbers, and transaction details. An example of the file produced is shown below:

    ```
    VOL1111001 PHASE842 3 HDR1IBRO111 J 11100100010001 02307 02321
    000000 HDR2F0190000380 00 UHL1 023073700000007 00000 001
    0491182014290000027J1094258217330212000000000727 0230714053100007336
    0010013300150000001Store 1 01002TETLEY TEA 250G0000000459
    0004917480000000008J1094258217330212000000002598 0230714023100026047
    0010013100 50000002Store 1 01
    4936600153000006637J1094258217330212000000001680 0230714093500016865
    0010013400150000003Store 1 01001COFFEE 0000000345001DOUBLE CREAM
    0000000079 0006331101999990016J1094258217330212000000000679
    ```

```
0230714042300006858 0010013200950000004Store 1 01001TETLEY TEA
250G0000000255001COFFEE 0000000345001DOUBLE CREAM 0000000079
000000000000000000000J409425821733
000000056840000000056840000000000000000004000000000000005YES0311020000
0000000000000000000000000000000000000000000000000000000000000000000000
0000000000000000000000000000000000000000000000000000000000000000000000
0000000000000000000000000000000000000000000000000000000000000000000000
0000000000000000000000000000000000000000000000000000000000000000000000
000000000 0000000000000000000J8000PHASE842
000000056840000000056840000000000000000001000000000000006000000000000
0000000000000000000000000000000000000000000000000000000000000000000000
0000000000000000000000000000000000000000000000000000000000000000000000
0000000000000000000000000000000000000000000000000000000000000000000000
0000000000000000000000000000000000000000000000000000000000000000000000
000000000 EOF1IBRO111 J 1110010001001  02307 02321 000000
EOF2F0190000380000000000000000000000000000000000000000000000000000000
0000000000000
UTL10000000056840000000000000000000001000000000000006
```

— *Submit*

This initiates a background task which sends the file created by the output process to the relevant bank, using the FTP file transfer protocol.

The details on the success or failure of the different operations are written to the Application Event Log which is available from the *View Application Event Log* page.

6.1   Edit Submission Session

This page enables you to view and edit the individual card transactions which are part of the submission session.

Complete any of the following fields and click the *Search* icon to filter the data. If the fields are left blank all matching tenders for the selected session are displayed.

•   Enter Merchant ID

The ID of the merchant required (up to 20 alphanumeric characters).

- Enter Card Number

  The card number required. It must be between 9 and 22 digits).

- Enter Tender Value

  The tender value required. It must be in the range -999999999 to +999999999.

All matching tenders in the selected audit session are displayed in a table with the following headings:

Option/Field	Description
Options	The actions you can perform on the selected matching tender, e.g. View, Edit, Remove.
Merchant ID	The merchant ID of the transaction.
Card Number	The card number for the transaction.
Acquirer ID	The ID of the acquirer for the transaction.
Date	The date and time of the transaction.
Tender Value	The value of the tender of the transaction.

- Click the *New* icon to add a new card transaction.

- Click the *View* icon to view the card transaction.

- Click the *Edit* icon to edit the card transaction (see "Edit Card Transaction" on page 12).

6.1.1 Edit Card Transaction

This page enables you to edit a selected card transaction. Clicking the *View* icon displays this page in read-only mode.

Submission Status

You are editing transaction: 1

Field	Value
Audit Transaction ID	59
Original Transaction ID	30
Date	19/08/08 12:09:15
Store Name	1009D
Company Number	1
Branch Number	1
Terminal ID	1

All tenders in this transaction are shown below.

Options	Card Number	Tender Value
✏️ ❌	374282452453006	-£99.99
➕		

All products in this transaction are shown below.

Options	Product ID	Product Net Value
✏️ ❌	1	£99.99
➕		

💾 ❌

The following information is displayed in read-only format.

- *Audit Transaction ID*

    The ID number of the audit transaction.

- *Original Transaction ID*

    The ID number of the original transaction, where the card was used.

- *Date*

    The date and time when the transaction occurred.

- *Store Name*

    The name of the store where the transaction took place.

- *Company Number*

    The company number.

- *Branch Number*

    The number of the branch where the transaction took place.

- *Terminal ID*

The ID number of the terminal where the transaction took place.

All relevant tenders in the selected transaction are displayed in a table with the following headings:

• *Options*

The actions you can perform on the selected tender, e.g. Edit, Remove.

• *Card Number*

The card number for the transaction.

• *Tender Value*

The value of the tender of the transaction.

Click the *New* icon to add a new tender.

Click the *Edit* icon to edit a tender (see "Edit Tender" on page 14).

Click the *Remove* icon to delete a tender.

All relevant products in the selected transaction are displayed in a table with the following headings:

• *Options*

The actions you can perform on the selected product, e.g. Edit, Remove.

• *Product ID*

The ID of the product (s) contained in the selected transaction.

• *Product Net Value*

The new value of the product (s) contained in the selected transaction.

Click the *New* icon to add a new product.

Click the *Edit* icon to edit a product (see "Edit Product" on page 16).

Click the *Remove* icon to delete a product.

Click the *Save* icon to save your changes. Alternatively, click the *Cancel* icon to abandon your changes and return to the previous page.

6.1.1.1 Edit Tender

This page enables you to edit the tender in the selected transaction.

Submission Status

You are editing tender item

Field	Value
Acquirer ID	Retail-J Test Server
Merchant ID	123456789012345
EFT Terminal ID	1
Card Number	374282452453006
Card Issue	
Expiry Date	0912
Tender Value	-£1.50
Swiped	☑
ICC	☐
Authorisation On-line	☐
Authorisation Code	01511
Currency ID	UK Sterling
Cashback Amount	£0.00

To edit a tender item:

1. Choose an acquirer from the *Acquirer ID* pop-up menu. The available acquirers are specified in the *Acquirer Maintenance* page.

2. Enter the *Merchant ID* (up to 20 alphanumeric characters).

3. Enter the *Card Number* (between nine and 22 digits).

4. Enter the *Card Issue* number.

5. Enter the card *Expiry Date*. It consists of four digits, two for the month and two for the year, i.e. mmyy.

6. Enter the *Tender Value*. It must be in the range -999999999 to +999999999.

7. Select the *Swiped* check box if the card was swiped through a card reader.

8. Select the *ICC* check box if it is an integrated circuit card (chip card).

9. Select the *Authorisation On-line* check box if an online authorisation was performed.

10. Enter the *Authorisation Code* of the transaction (up to nine digits).

11. Choose a currency from the *Currency ID* pop-up menu. The options available depend on the definitions in *Currencies Maintenance* page.

12. Enter the amount of cash given back with the transaction in the *Cashback Amount* field. It must be a positive numeric value.

13. Click the *Save* icon to save your changes. Alternatively, click the *Cancel* icon to abandon your changes and the Edit Card Transaction page (see "Edit Card Transaction" on page 12).

6.1.1.2 Edit Product

This page enables you to edit product information for the selected transaction.

To edit a product item:

1. Enter the ID number of the product in the *Product ID* field (up to 20 alphanumeric characters).

2. Enter the number of items in the *Product Quantity* field (in the range -999.999 to +999.999).

3. Enter the net value of the product in the *Product Net Value* field (in the range -999999999 to +999999999).

4. The *Department ID* is read-only. Click the *Save* icon to save your changes. Alternatively, click the Cancel icon to abandon your changes and return to the *Edit Card Transaction* page (see "Edit Card Transaction" on page 12).

6.2 Submission Session History

This page enables you to examine all individual acquirer submissions in the selected session.

All acquirer submissions for the selected session are displayed in a table with the following headings:

• *Options*

  The actions you can perform on the selected acquirer submission, e.g. View, Refresh.

- *Acquirer ID*

  The ID of the acquirer.

- *Status*

  The status of the acquirer submission.

- *Output Date*

  The date and time at which the output occurred.

- *Submission Date*

  The date and time at which the acquirer submission occurred.

Click the *View* icon to view an acquirer submission (see "View Acquirer Submission" on page 17).

Click the *Mark for re-submission* icon to re-submit a particular acquirer's data. You will be prompted for confirmation before the data is re-submitted.

Click the *Back* icon to return to the previous page.

6.2.1   View Acquirer Submission

This page enables you to view the selected acquirer's submission summary. It shows the totals submitted to each acquirer by store. The fields are read-only and cannot be edited.

Submission Status

You are viewing the submission summary for DINERS.

Field	Value
Acquirer ID	DINERS
Status	Submission Complete
Output Date	14/08/08 14:10
Submission Date	14/08/08 14:10
Total Records	0
Total Net Debit Items	0
Total Net Debit	£0.00
Total Net Credit Items	0
Total Net Credit	£0.00

Store ID	Store Name	Tender Value
1	UK Store	£0.00
1009	1009D	£0.00

The following information is shown:

- *Acquirer ID*

  The ID of the acquirer.

- *Status*

  The current status of the submission.

- *Output Date*

  The date and time of the output.

- *Submission Date*

  The date and time of the submission.

- *Total Records*

  The total number of records in the submission.

- *Total Net Debit Items*

  Total number of net debit items in the submission.

- *Total Net Debit*

  The total value of all net debits in the submission.

- *Total Net Credit Items*

  The total number of net credit items in the submission.

- *Total Net Credit*

  The total value of all net credit items in the submission.

The store where the transaction originated is displayed in a table with the following headings:

- *Store ID*

  The ID of the store from where the transaction was made.

- *Store Name*

  The name of the store from where the transaction was made.

- *Tender Value*

  The total value of the tender for the transaction.

Click the *Back* icon to return to the previous page.

7.0 Submission Summary

The *Card Submission Summary* page enables you to enter the criteria required for the selected report.

Card Submission Summary

The following criteria are required for the selected report.

Select Report Type	● Daily ○ Weekly ○ Monthly ○ By Period ○ By Date Range ○ By Trading Session ○ By Submission Session
Select Base Currency	UK Sterling ▼
Select Applicable Location Region	United Kingdom ▼
Select Applicable Location Type	Standard Store ▼
Select Location	 1009D ▼
Enter Date	19/08/08 (dd/mm/yy)
Select Terminal	All ▼
Select Acquirer	All ▼

🔍 ↩ 💾

To specify the criteria:

- Click the required *Select Report Type* button. The options available are:

    — Daily

    — Weekly

    — Monthly

    — By Period (quarterly)

    — By Date Range

    — By Trading Session

    — By Submission Session

    The default is *Daily*.

- Choose the base currency from the *Select Base Currency* pop-up menu. The options available depend on the definitions in the *Currency Maintenance* page.

- Choose a location region from the *Select Applicable Location Region* pop-up menu. The options available depend on the definitions in the *Location Region Hierarchy* page. The default is *All*.

- Chose a location type from the *Select Applicable Location Type* pop-up menu. The options available depend on the definitions in the *Location Type Hierarchy* page. The default is *All*.

- Chose a location from the *Select Location* pop-up menu. The options available depend on the definitions in the *Location Maintenance* page. The default is *All*.

- Enter a range for the report. The fields displayed depend on report type you selected.

  — Choose a year from the *Select Year* pop-up menu. The default is this year.

  — Choose a period from the *Select Period* pop-up menu. The default is the current period.

  — Choose a month from the *Select Month* pop-up menu. The default is this month.

  — Click the *Select Week* button to choose a week commencing from the *Select Week* pop-up menu. The default is this week. Alternatively click the *Enter Date* button to enter a specific date.

  — Enter a date in the *Enter Date* field in the shown format, e.g. dd/mm/yy. The default is today's date.

  — Enter the earliest date and time in the *Enter Start Date* field in the shown format, e.g. dd/mm/yy hh:mm.

  — Enter the latest date and time in the *Enter End Date* field in the shown format, e.g. dd/mm/yy hh:mm.

  — Choose a trading session from the *Select Trading Session* pop-up menu. The default is *All*.

  — Choose a submission session from the *Select Submission Session* pop-up menu. The default is *All*.

- Choose a terminal from the *Select Terminal* pop-up menu. The options available depend on the definitions in the *Terminal Maintenance* page. The default is *All*.

- Choose an acquirer from the Select Acquirer pop-up menu. The options available depend on the definitions in the *Acquirer Maintenance* page. The default is *All*.

Click the *View* icon to view the submission summary (see "View Submission Summary" on page 20).

Click the *Back* icon to return to the *Home* page.

Click the *Save* icon to save a copy of the report for future viewing. Enter a filename when prompted.

7.1   View Submission Summary

This page displays the required card submission summary report as specified in the above criteria.

Card Submission Summary

You are viewing the Card Submission Summary for trading on 13/08/08.

Base Currency: UK STERLING   Acquirer: All
Location Region: All   Location Type: All
Store: All   Terminal: All

Report run by admin at 20/08/08 16:39

Card Type	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Totals
Acquirer RETAILJ - Retail-J Test Server								
Visa Delta	£0.00	£0.00	£0.00	£37.32	£0.00	£0.00	£0.00	£37.32
Sub-Totals	£0.00	£0.00	£0.00	£37.32	£0.00	£0.00	£0.00	**£37.32**
	0	0	0	3	0	0	0	**3**

The summary is displayed in a table with the following information:

• Card Type

• Daily Totals

• Weekly Totals

Click the *Back* icon to return to the previous page.

Click the *Save* icon to save a copy of the report.

Click the *Print* icon to print the report.

8.0 Submission Details

The *Card Submission Details* page enables you to select the required criteria for the submission details report.

Card Submission Details

The following criteria are required for the selected report.

Select Report Type	● Daily ○ Weekly ○ Monthly ○ By Period ○ By Date Range ○ By Trading Session ○ By Submission Session
Select Base Currency	UK Sterling ▾
Select Applicable Location Region	United Kingdom ▾
Select Applicable Location Type	All ▾
Select Location	[ ] 1009D ▾
Enter Date	21/08/08　(dd/mm/yy)
Report by	Original Transaction Date ▾
Select Terminal	All ▾
Select Transaction Range	All ▾
Select Acquirer	All ▾
Enter Amount	No restriction ▾ [ ]
Enter Card Number	[ ]
Enter Number of Times Card Used	No restriction ▾ [ ]
Group Report By	Store and acquirer ▾
Summary Only	☐

🔍 ↩ 💾

To specify the criteria:

1. Click the required *Select Report Type* button. The options available are:

   • Daily

   • Weekly

- Monthly

- By Period (quarterly)

- By Date Range

- By Trading Session

- By Submission Session

The default is *Daily*.

2. Choose the base currency from the *Select Base Currency* pop-up menu. The options available depend on the definitions in the *Currency Maintenance* page.

3. Choose a location region from the *Select Applicable Location Region* pop-up menu. The options available depend on the definitions in the *Location Region Hierarchy* page. The default is *All*.

4. Chose a location type from the *Select Applicable Location Type* pop-up menu. The options available depend on the definitions in the *Location Type Hierarchy* page. The default is *All*.

5. Chose a location from the *Select Location* pop-up menu. The options available depend on the definitions in the *Location Maintenance* page. The default is *All*.

6. Enter a range for the report. The fields displayed depend on report type you selected.

   - Choose a year from the *Select Year* pop-up menu. The default is this year.

   - Choose a period from the *Select Period* pop-up menu. The default is the current period.

   - Choose a month from the *Select Month* pop-up menu. The default is this month.

   - Click the *Select Week* button to choose a week commencing from the *Select Week* pop-up menu. The default is this week. Alternatively click the *Enter Date* button to enter a specific date.

   - Enter a date in the *Enter Date* field in the shown format, e.g. dd/mm/yy. The default is today's date.

   - Enter the earliest date and time in the *Enter Start Date* field in the shown format, e.g. dd/mm/yy hh:mm.

   - Enter the latest date and time in the *Enter End Date* field in the shown format, e.g. dd/mm/yy hh:mm.

   - Choose a trading session from the *Select Trading Session* pop-up menu. The default is *All*.

   - Choose a submission session from the *Select Submission Session* pop-up menu. The default is *All*.

7. Choose a method from the *Report By* pop-up menu. The options are:

   - Original Transaction Date

   - Effective Session Date

8. Choose a terminal from the *Select Terminal* pop-up menu. The options available depend on the definitions in the *Terminal Maintenance* page. The default is *All*.

9. Choose the transaction range from the *Select Transaction Range* pop-up menu. Currently, the only option is *All*.

10. Choose an acquirer from the *Select Acquirer* pop-up menu. The options available depend on the definitions in the *Acquirer Maintenance* page. The default is *All*.

11. Choose a restriction from the *Enter Amount* pop-up menu and complete the *Enter Amount* field. The options available are:

    • No restriction

    • Less than

    • Less than or equal to

    • Equal to

    • Greater than

    • Greater than or equal to

    • Not equal to

12. Enter a card number in the *Enter Card Number* field (between nine and 22 digits).

13. Choose a restriction from the *Enter Number of Times Card Used* pop-up menu and complete the *Enter Number of Times Card Used* field. The options available are:

    • No restriction

    • Less than

    • Less than or equal to

    • Equal to

    • Greater than

    • Greater than or equal to

    • Not equal to

14. Choose the method you want to use for grouping the report from the *Group Report By* pop-up menu. The options available are:

    • Store and acquirer

    • Store, acquirer, and card group

    • Store, card group, and acquirer

    • Acquirer and store

    • Acquirer, card group, and store

    • Card group, acquirer, and store

15. Select the *Summary Only* check box to create a summary report.

Click the *View* icon to view the report (see "View Submission Details" on page 25).

Click the *Back* icon to return to the *Home* page.

Click the *Save* icon to save a copy of the report for future viewing. Enter a filename when prompted.

8.1 View Submission Details

This page displays the card submission details according to the criteria specified in the *Card Submission Details* page.

Card Submission Details

You are viewing Card Submission Details for trading on 8/13/08.

Base Currency: UK STERLING
Location Region: All   Location Type: All
Store: All   Terminal: All
Transaction Range: All   Acquirer: All
Card Number: All   Number of times card used: All
Amount: All

Report run by admin at 8/26/08 11:25 AM

	Terminal	Transaction	Date/Time	Amount	Card Number	Card Type	Merchant ID
Store 1 – UK Store							
Acquirer RETAILJ – Retail-J Test Server							
	1	8	8/13/08 4:21 PM	£10.00	4539791001730106	AMEX	123456789012345
	1	10	8/13/08 4:25 PM	£1.21	4539791001730106	VISA	123456789012345
	1	12	8/13/08 4:47 PM	£26.11	4539791001730106	Switch	123456789012345
Acquirer RETAILJ – Total (3)				£37.32			
Store 1 – Total (3)				£37.32			

Normally, the card submission details are displayed in a table with the following headings:

- *Terminal*

  The terminal on which the transaction took place.

- *Transaction*

  The number of the transaction which contained the card transaction.

- *Date/Time*

  The date on which the transaction took place.

- *Amount*

  The amount of the transaction which was charged to the card.

- *Card Number*

  The number of the card.

- *Card Type*

  The type of card used.

- *Merchant ID*

  The ID of the merchant associated with the card.

If the *Summary Only* check box was selected in the *Card Submission Details* page, then only the totals will be shown.

Card Submission Details

You are viewing Card Submission Details for trading on 8/13/08.

Base Currency: UK STERLING
Location Region: All   Location Type: All
Store: All   Terminal: All
Transaction Range: All   Acquirer: All
Card Number: All   Number of times card used: All
Amount: All

Report run by admin at 8/26/08 11:16 AM

Group Summary	Amount
Store 1 - UK Store	
Acquirer RETAILJ - Total (3)	£37.32
Store 1 - Total (3)	£37.32

Click the *Back* icon to return to the previous page.

Click the *Save* icon to save a copy of the report for future viewing. Enter a filename when prompted. You will then be returned to the *Card Submission Details* page (see "Submission Details" on page 21).

Click the *Print* icon to print the report.
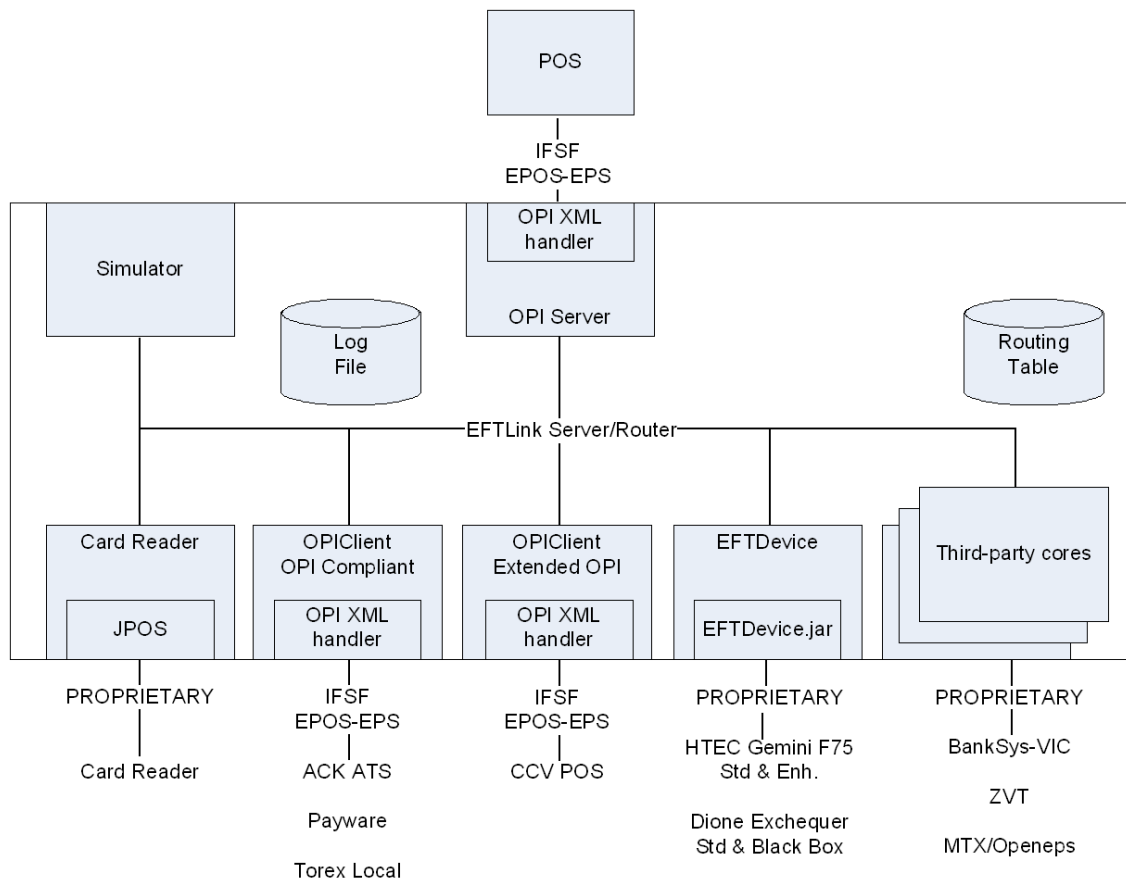
9.0   EFT-Link

EftLink is a router and protocol converter, presenting a standardised interface to a payment client (typically a POS), and linking to whatever authorisation system (or systems) the cus-tomer uses.

The interface with the authorisation system is separated from Retail-J, removing any impact of country-specific or server-specific requirements from the POS itself. The adoption of a standard IFSF/OPI inter-face makes EFTLink portable to other POS or payment environments.

EFTLink is written in Java and distributed as a Java library.

There is a published interface that third-party cores must follow.

The architecture of EFTLink is shown below.

1. Ensure the file is available in the Java classpath.

2. In the Terminal Profile Maintenance page, choose 'Micros EFTLink' from the ICC Reader Type drop-down menu.

3. Select the TCP/IP button and enter the IP address of the ICC reader in the ICC Reader Address field.

4. Select '-' from the ICC Configuration drop-down menu.

5. Click the Save icon to save your changes.

6. In the IIN Range Maintenance page, create a new IIN Card Range with a starting range and ending range of 111111 and a PAN length of 16.

7. Select 'Generic' from the Card Type drop-down menu.

8. Enter a Card Description, for example 'Generic Payment Card'.

9. Enter an Issuer Description, for example 'Generic Card IIN'.

10. Accept the defaults for the three Action for Keyed PAN fields.

11. Deselect the six Allowed as ... Card check boxes and leave the Customer Account Length field blank.

12. Leave the two E-Topup fields blank.

13. Accept the default Country and Currency codes.

14. Leave the Embossed Digit Group Lengths field blank.

15. Deselect the Expiry Date Limit Check? check box.

16. Select the Ignore Normal Luhn Check? check box.

17. Click the Edit Track Data icon.

18. Select the PAN Attributes Keyable check box.

19. Click the Save icon to save your changes.

20. In the Acquirer Maintenance page, create a new Internal Acquirer.

21. Enter a unique Description, for example EFTLink Internal Acquirer.

22. Accept all the other default values.

23. Click the Save icon to save your changes.

24. In the Tender Maintenance page, edit or create a new card tender with a Tender Sub Type of 0.

25. Select the Force Amount Entered? check box.

26. Complete the other fields as required.

27. Click the Save icon to save your changes.

The "Generic" card type is used to specify which prompts are presented to the operator be-fore author-isation is sought from EFTLink. Following a successful authorisation, the actual card type is identified using a CardType value returned from EFTLink. Possible CardType values are specified in the EFTLink configuration file. Card Type values should be entered into the new field labelled "External System Card Type identifier" of the appropriate Card-Types for each card scheme.