

CAPITALAND RETAIL MANAGEMENT PTE LTD
Third Party POS System Integration Specifications
(POS Acceptance Form - Option B)

For Tenant who has accepted and opted for Option B of the POS Acceptance form for their own Point of Sale (POS) system which is connected to their Head Office to integrate with CapitaMall Trust (CMT)'s POS to transmit total daily sales in text format through secured file transfer protocol (sFTP) transmission to CMT's server, the Tenant's POS System Integration Specification shall be used by Tenant's IT Team or Tenant's POS Vendor to carry out the necessary development and implementation according to the specifications.

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A System Requirements (Off-site Transaction File Transmission)

1. Tenant POS systems are centrally controlled from their HQ, Tenant can opt to send the daily transaction file from their HQ system through the Internet. **Secured file transfer method is sFTP** with much higher security consideration. Tenant has to have internet access at HQ.
2. For this method of file transmission, the CMT and DCS Synthesis' representative shall discuss the data file transmission and security considerations in detail with Tenant's IT representative.
3. Tenant's IT team / POS vendor should develop a function or program in the POS system to **automatically** generate and transmit the daily transaction file to the CMT's server after the end of each business day (One transaction for each business day). Provision must be made to allow for backlog processing of delayed or failed transmission (e.g. manual trigger). Refer to Section C, D and E for Transaction File Naming Convention Specification, Daily Transaction File Format Specification, and Adjustment Transaction File Format Specification respectively.
4. If there are more than 1 POS terminals in the tenant's outlet, the sales transactions of all POS must be consolidated into 1 file and transmit to the CMT's server.
5. Tenant should appoint a dedicated staff or their POS Vendor to coordinate with DCS Synthesis' Project Co-coordinator for sFTP of the Daily Transaction File and Adjustment Transaction File into the CMT's server and the testing of the system integration.

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B Daily interface operation

1. Tenant shall generate 1 Daily Transaction File in a text file format after every end of day closing and **automatically** send transmit the Daily Transaction File to the CMT's server. The IP address will be provided by the CMT together with required user ID and password to control the access to the CMT's server; including Machine ID and the Daily Transaction Filename.
2. Tenant can choose to transmit their Daily Transaction File between 12noon to the next day 4am.
3. If the Tenant POS system is not able to send any day's Daily Transaction File successfully due to whatever reason, the Tenant has to (manually, if necessary) send any backlog daily transaction files to the CMT's server upon resolving the problem.
4. If the Tenant's POS system is not operational due to the POS technical problem and is not able to sFTP data from the HQ, the Tenant representative has to update the CMT Management immediately.

If you have any query, please contact the following:

CapitaLand IT	Ms Clarise Ho	6713 1566 (O)
CapitaLand POS	POS Support	6969 3404 / 6242 3177 (O)

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C Transaction File Naming Convention Specifications

1. The file naming convention follows the DOS filename standard (8.3 format) for backward compatibility to DOS-based POS terminals.

Position	Size	Description
1	1 char	Document Type “D” for Daily Transaction File “T” for Month End Total Transaction File
2 to 8	7 char	Machine ID This is a unique identifier assigned to individual POS System provided by the CMT. Format of Machine ID is made up of 7 numeric characters. Example of Machine ID: 1321000
9	1 char	Constant “.”
10 to 12	3 num	File Serial Number 3 numerals at the end of the filename to differentiate each daily file sent to the sFTP server. Example: <filename>.XXX “XXX” shall be a running number incremented by 1 each time a file is generated and sent. The number should start from “000” and once it reaches “999”, the number will be reset to “000” and increase from there again.

2. Machine ID should not be hard coded in the POS software system or Cash Register. It should be a configurable parameter in a database table or in an “ini” file
3. Daily Transaction filename must start with a “D” for each exported file. Example of a filename:
D1321000.135

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D Daily Transaction File Format Specification

1. The exported file shall be a text file with fixed-length fields in the following format:

Field No.	Type Size	Position	Field	Description
1	Character (1)	1	Document Type	"D" for Daily Transaction File
2	Numeric (7)	2 - 8	Machine ID	Unique identifier assigned to individual POS System across the mall. Format of Machine ID is made up of 7 numeric characters and this ID is assigned to the tenant by the Mall Example of Machine ID: 1321000
3	Date (8)	9 - 16	Transaction Date	Date of sales transaction adopting "YYYYMMDD" format. Example: 20100928 (28 Sept 2010)
4	Numeric (11) 99999999.99	17 - 27	Sales Amount	This is the defined as: Gross Sales less Discount plus Service Charges (if any) before tax (i.e. GST or CESS)

2. Machine ID should not be hard coded in the POS software system or Cash Register. It should be a configurable parameter in a database table or in an "ini" file
3. Tenant who has no sale for the day is required to submit a daily file with sale amount of \$0.00
4. Tenant who has negative sale for the day is required to submit a daily file with negative sale amount. The negative sign should be at position 17.

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E Month End Total Transaction File Format Specification

1. Latest by the 7th day of each month, Tenant who needs to settle their month end sales figures for the previous month should to submit a total after adjustment transaction file.
2. This month end total is meant for transactions that are not keyed into the POS system or other such issues.
3. The exported file shall be a text file with fixed-length fields in the following format:

Field No.	Type Size	Position	Field Name	Description
1	Character (1)	1	Document Type	"T" for Total after adjustment Transaction File
2	Numeric (7)	2 - 8	Machine ID	Unique identifier assigned to different POS System across the mall. Format of Machine ID is made up of 7 numeric characters assigned to the Tenant. Example: 1321000
4	Numeric (6)	9 - 14	Transaction Month	Date of sales transaction adopting "YYYYMM" format. Example:201009 (Sept 2010)
5	Numeric(11) 99999999.99	15 - 25	Adjustment amount	Total Amount after adjustment before Tax (GST / CESS)

4. Machine ID should not be hard coded in the POS software system or Cash Register. It should be a configurable parameter in a database table or in an "ini" file

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F Sample Transactions

Example A

For Retail tenant (Pay by Cash, Nets or Credit card):

A Shopper purchase S\$200.00 of goods and get S\$ 10% discount.
Final he paid S\$ 180.00 + 7% GST

Receipt Example:

Sales item	S\$ 200.00
Discount (10%)	S\$ 20.00
GST	S\$ 12.60
Total	S\$ 192.60

Field	Data
Machine ID	1321000
Transaction Date	20100928 (means 28 th Sept 2010)
Sales Amount	180.00

Sample Filename: D1321000.000

Sample Data: D13210002010092800000180.00

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Example B

For Retail tenant who have negative sales of S\$180

Field	Data
Machine ID	1321000
Transaction Date	20100928 (means 28 th Sept 2010)
Sales Amount	-180.00

Sample Filename: D1321000.000

Sample Data: D132100020100928-0000180.00

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Example C:

For F&B Restaurant (Pay by Cash, Nets or Credit card):

A Shopper eats in a Restaurant and spends S\$200.00 and get S\$ 10% discount.
Final he paid S\$ 180.00 + 7% GST + 10% Service Charge + 1 % CESS

Receipt Example:

Sales item	S\$ 200.00
Discount (10%)	S\$ 20.00
Service charge	S\$ 18.00
CESS	S\$ 1.80
GST	S\$ 12.60
Total	S\$ 212.40

Field	Data
Machine ID	1321000
Transaction Date	20100928 (means 28 th Sept 2010)
Sales Amount	198.00

Sample filename: D1321000.000

Sample Data: D13210002010092800000198.00

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Example D

Total Monthly after Adjustment Sample:

For Aug 2010, Tenant has total daily sales of S\$5800 but after adjustment the Total Sales for the month should be S\$6000.00.

By 7th Of Sep 2010, please report the total sales for August 2010 Once the T-file is received. We will take in \$6000 as the reported total instead of \$5800

Field	Data
Machine ID	1321000
Transaction Date	201008 (means Total after Adjustment for Aug 2010)
Adjustment Amount	6000.00

Sample File Name: T1321000.000

Sample Data: T132100020100800006000.00