

# ATM SETUP & MANAGEMENT

ATM



**TEMENOS**

The Banking Software Company

# COURSE INDEX

- Concept Introduction
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- Logging setup
- First time business setup
- Online(Working Setup)
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# Concept Introduction

- OFS
- TC SERVER
- CONNECTION
- FUND.TRANSFER
- TYPE OF TRANSACTION
- DATA FLOW OF ATM TRANSACTION
- MESSAGE MAPPING
- LOGGING

- OFS mean OPEN FINANCE SERVICE
  - ✧ Format message from ISO 8583 to T24 message format
  - ✧ Standard method to post transaction into T24 system
  - ✧ Validate, error checking, log when process error message
  - ✧ Process and return transaction result



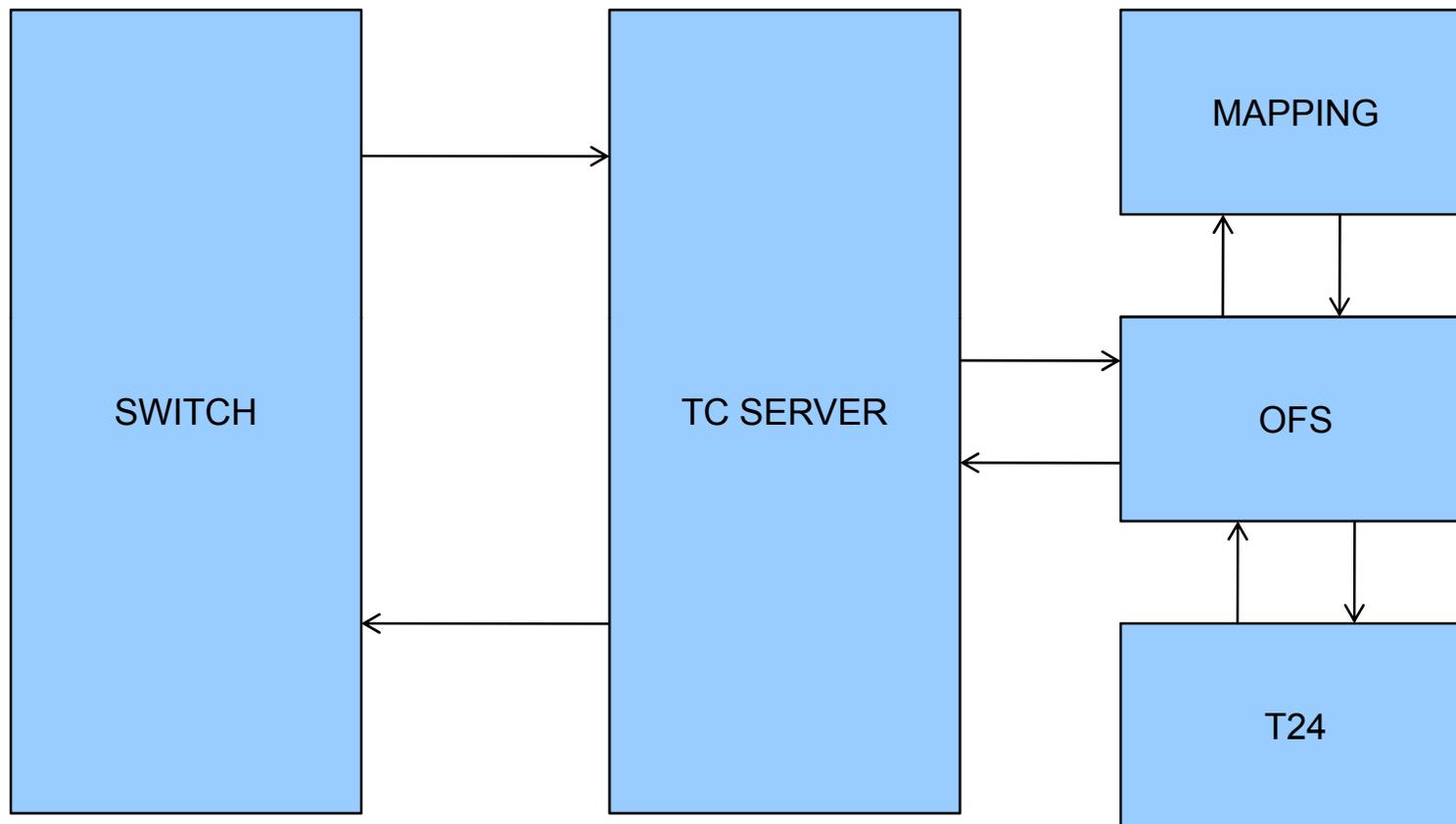
- TC Server mean TEMENOS Connector Server
  - ✧ Use as transport layer to T24 system
  - ✧ Accept almost general connection type
  - ✧ XML standard complicated
  - ✧ Multi session support
- The TC Server has been deployed and tested on the following platforms :
  - ✧ Windows 32
  - ✧ AIX
  - ✧ HP-UX
  - ✧ Linux
  - ✧ .....

- Connection is accepted by TC Server
  - ✧ TCP/IP: Standard network connection
  - ✧ Flat file: Message is store as text file in specific FOLDER
  - ✧ Message Queue : IBM Message Queue

- FUNDS.TRANSFER is standard Application to process ATM transaction
  - ✧ Support non-stop feature to accept ATM transaction 24/24
  - ✧ Can process with many type of account
    - ✓ GL Account (Internal Account)
    - ✓ Customer Account
    - ✓ Nostro Account
    - ✓ Payable/Receive able
  - ✧ Support Fee & VAT Collection

- TYPE OF TRANSACTION in ATM:
  - ✧ NORMAL TRANSACTIONS – Bank customer doing transaction in an ATM attached to Bank branch
  - ✧ NETWORK TRANSACTION - Bank customer doing transaction in an ATM attached to other institution's branches
  - ✧ LORO TRANSACTIONS - Other institution's customers doing transaction in ATM attached to Bank branch.

# DATA FLOW OF ATM TRANSACTION



## ■ What is MESSAGE MAPPING ?

- ✧ MESSAGE MAPPING is feature to let's customer amend, reconfigure, create new type of transaction
- ✧ Let you map m - n between ATM message field and T24 Application field by 1 – 1 pair
- ✧ Let you re-format(config) data between come to T24 field
- ✧ Input multi message field to single Application field
- ✧ .....

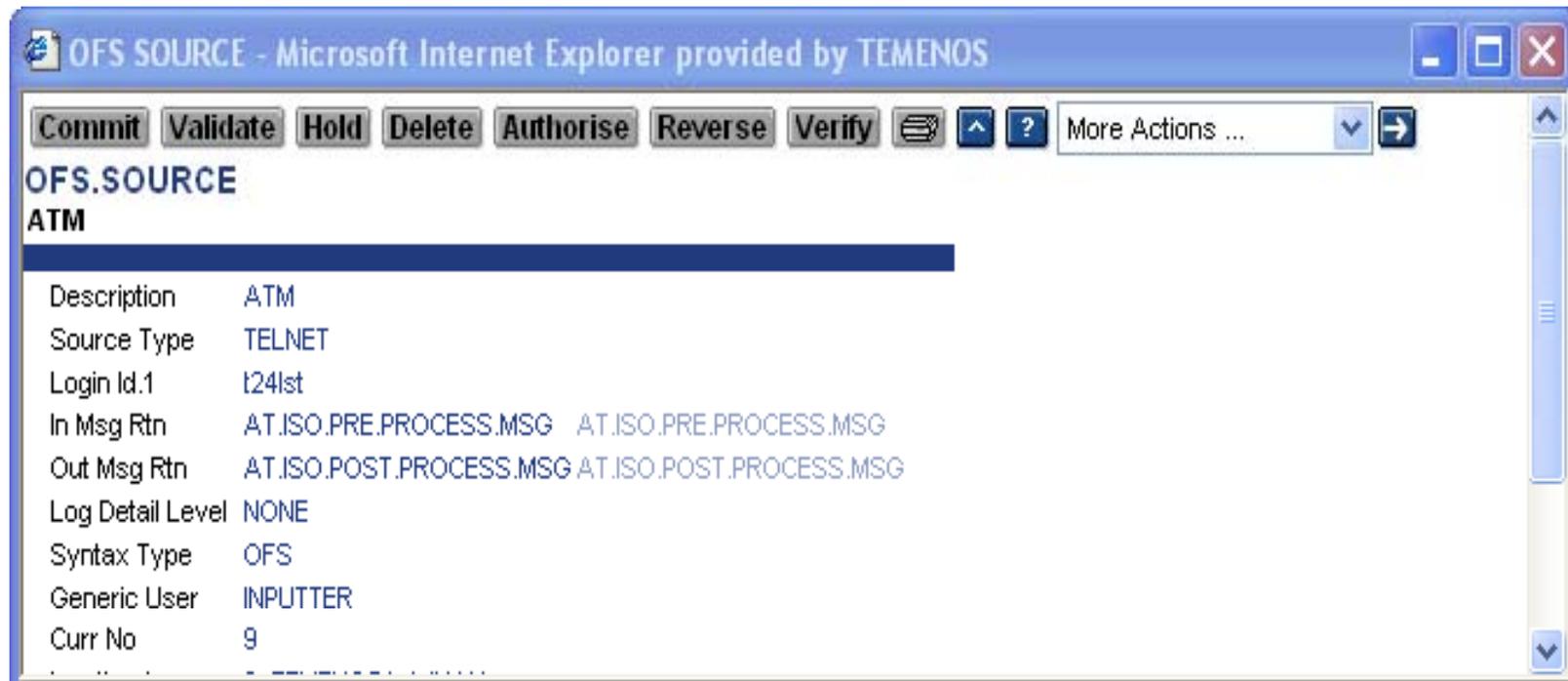
- ATM support logging type :
  - ✧ TC Server Log
  - ✧ OFS Log
  - ✧ Transaction Log

# SETUP NEW TC SERVER

- INSTALL TC SERVER PACKAGE
- SETUP OFS SOURCE RECORD (IF NOT EXISTERN)
- CONFIG at TCCONFIG.XML file
- START AND TEST

- INSTALL TC SERVER TO SYSTEM
- APPLY ANY PATCH AFTER THAT

- MAKE SURE YOU HAVE OFS.SOURCE NAME 'ATM' IN SYSTEM AS BELOW



## ■ ADD LISTENER

- ✧ Under the <LISTENERS> tag a new listener has to be configured as below. The value in the attribute „type“ has to exactly correspond to what's given in the file plug-in.desc as plug-in-id.

```
<LISTENER Name="atm" type="isolistener" active="true">  
    <ADAPTERID>ATM</ADAPTERID>  
    <PORT> 4002 </PORT>  
  
</LISTENER>
```

## ■ ADD ADAPTER

- ✧ The adapter for this listener should be a normal T24adapter with

```
<ADAPTER id="ATM">  
    <MAX_SESSION> 5 </MAX_SESSION> <MIN_SESSION> 0 </MIN_SESSION>  
    <TIMEOUT>30</TIMEOUT> <LOGIN_CONTEXT></LOGIN_CONTEXT>  
    <STARTIN>/glois/Tempareas/priyag/bnk/bnk.run</STARTIN>  
    <JBASEPATH>/jbase/jbc507</JBASEPATH>  
    <PROGRAM>tSS</PROGRAM> <PARAMETER>ATM</PARAMETER>  
  
</ADAPTER>
```

- After START TC SERVER, It must have result as below:

```
0 2007-01-08 03:33:57,745 [main] INFO tcs - crifformatter [formatter]
5 2007-01-08 03:33:57,745 [main] INFO tcs - ctrlcharremoverformatter [formatter]
7 2007-01-08 03:33:57,761 [main] INFO tcs - echoadapter [adapter]
3 2007-01-08 03:33:57,761 [main] INFO tcs - edimlformatter [formatter]
9 2007-01-08 03:33:57,761 [main] INFO tcs - editoxmlformatter [formatter]
0 2007-01-08 03:33:57,761 [main] INFO tcs - filelistener [listener]
1 2007-01-08 03:33:57,761 [main] INFO tcs - filereaderadapter [adapter]
2 2007-01-08 03:33:57,761 [main] INFO tcs - filewriter [adapter]
3 2007-01-08 03:33:57,776 [main] INFO tcs - integratorlistener [listener]
4 2007-01-08 03:33:57,776 [main] INFO tcs - isolistener [listener]
5 2007-01-08 03:33:57,776 [main] INFO tcs - jconsrv [listener]
6 2007-01-08 03:33:57,776 [main] INFO tcs - jmslistener [listener]
```

# LOGGING SETUP

- Config file **tcslog.properties** file under **/conf** as below

```
File . , Record 'tcslog.properties'  
Command->  
0017 log4j.logger.common=INFO, file.  
0018 log4j.logger.tcs=INFO, file.  
0019 log4j.logger ofs=INFO, file.  
0020 log4j.logger.monitor=DEBUG, file, atm_monitor.  
0021 log4j.logger.alert=DEBUG, atm_monitor.  
0022 log4j.logger.mqseries=INFC, file.
```

```
File . , Record 'tcslog.properties'  
Command->  
0065 log4j.appender.file=org.apache.log4j.RollingFileAppender.  
0066 log4j.appender.file.layout=org.apache.log4j.PatternLayout.  
0067 log4j.appender.file.layout.ConversionPattern=%d [%t] %-5p %c %x - %m%n.  
0068 log4j.appender.file.File=<log.directory>/global.log.  
0069 log4j.appender.file.MaxFileSize=1024KB.  
0070 log4j.appender.file.MaxBackupIndex=99.  
0071 #####.  
0072 #monitor.  
0073 #####.  
0074 log4j.category.atm_monitor=DEBUG, atm_monitor.  
0075 log4j.appender.atm_monitor.layout=org.apache.log4j.PatternLayout.  
0076 log4j.appender.atm_monitor.layout.ConversionPattern=%d [%t] %-5p %c %x - %m%n.  
0077 #log4j.appender.atm_monitor=org.apache.log4j.ConsoleAppender.  
0078 log4j.appender.atm_monitor=org.apache.log4j.RollingFileAppender.  
0079 log4j.appender.atm_monitor.File=<log.directory>/atm_monitor.log.  
0080 log4j.appender.atm_monitor.MaxFileSize=512KB.  
0081 log4j.appender.atm_monitor.MaxBackupIndex=999.  
0082 #####.
```

- Config RAD.LOG.PARAMETER – ATM record as shown below.

```
  ID..... ATM
-----
1. 1. 1 GB DESC..... LOG PARAMETER FOR ATM
2 LOG.TYPE..... LOG4J
3 LOG.LEVEL..... DEBUG
4 FILE.LISTENER.PATH ../interfaces/log/request
```

- Append TCSERVER.XML as shown below.
- `<LISTENER Name="FILE.1" type="filelistener" active="true">`
- `<ADAPTERID>monitor</ADAPTERID>`  
`<REQUEST_PATH>/glois/Tempareas/priyag/bnk/interfaces/log/request</REQUEST_PATH>`  
`<RESPONSE_PATH>/glois/Tempareas/priyag/bnk/interfaces/log/response</RESPONSE_PATH>`  
`<ERROR_PATH>/glois/Tempareas/priyag/bnk/interfaces/log/response</ERROR_PATH>`
- `</LISTENER>`

```
<ADAPTER id="monitor" type = "monitoringadapter">  
  <ENABLE_JMX>>false</ENABLE_JMX>  
  <ENABLE_LOG4J>>true</ENABLE_LOG4J>  
  <DISPLAY_NAME>Test</DISPLAY_NAME>  
  <SHOW_NAME>>false</SHOW_NAME>  
</ADAPTER>
```

# First time business setup

OFS SOURCE - Microsoft Internet Explorer provided by TEMENOS

## OFS.SOURCE

### ATM

Description	ATM
Source Type	TELNET
Login Id.1	l24lst
In Msg Rtn	AT.ISO.PRE.PROCESS.MSG AT.ISO.PRE.PROCESS.MSG
Out Msg Rtn	AT.ISO.POST.PROCESS.MSG AT.ISO.POST.PROCESS.MSG
Log Detail Level	NONE
Syntax Type	OFS
Generic User	INPUTTER
Curr No	9

## ■ LOCAL REFERNECE FIELDS FOR FUNDS.TRANSFER

- ✧ BAL.AFT.TXN : Storing customer account balance after transaction
- ✧ AT.UNIQUE.ID : ATM Message unique ID
- ✧ AT.AUTH.CODE : ATM Authorize code
- ✧ ATM.TERM.ID : Reserved
- ✧ POS.MERCHANT.ID : Merchant POS Account

- **CREATE DEFAULT USERS:**
- Created USER must have the following sign on names and passwords if the mapping files provided are to be used as they are
  - ✧ TEMENOS01/123456
  - ✧ TEMENOS02/123456
  - ✧ TEMENOS03/123456
  - ✧ TEMENOS04/123456
- The interface doesn't force the above. If USERS are created with a different SIGN.ON.NAME and/or PASSWORD the INTRF.MAPPING records should be changed accordingly.

- Transaction types to be created in Creation of FT.TXN.TYPE.CONDITION for all transactions
  - ✧ ACAW :CASH WITHDRAWAL
  - ✧ ACAT :FUNDS TRANSFER
  - ✧ ACAR :REVERSAL
- If you want different transaction code for POS then create new TRANSACTION IDs and populate in the FT.TXN.TYPE.CONDITION record

- This is a parameter file, which stores the various details like the Network identification for the ATMs, the path for file used for balance upload which will store the information in the message The OFS details like user name, password and version to be used, the mapping between each message field to the Globus <sup>TM</sup> application field
  - ✧ BANK.IMD : 6 Leading characters in Bank ATM Card (Eg: 157979)
  - ✧ DB.TXN.CODE : Stores the debit transaction code from the TRANSACTION table.
  - ✧ CR.TXN.CODE : Stores the credit transaction code from the TRANSACTION table
  - ✧ Other fields you can reference in User Guide

- This file stores the details like receivable and payable accounts for visa/master card transactions.
  - ✧ BIN : 6 Leading characters in Nostro ATM Card (Eg: 157900)
  - ✧ PAY.ACCOUNT.NO : Payable Account Number
  - ✧ RECEIVE.ACCOUNT.NO : Receive Account number

# Online(Working Setup)

- Use when bank need to add new ATM Machine
  - ✧ TABLE NAME: ATM.BRANCH
  - ✧ ID format: Leading 4 characters in ATM CODE
- Case 1 : Make 1<sup>st</sup> ATM on a branch
  - ✧ Create new Branch record on ATM.BRANCH
    - ✓ COMPANY.CODE : Company ID
    - ✓ DEVICE.ID : Last 4 character
    - ✓ DEV.ID.INT.ACCT : Cash account of ATM Machine
- Case 2 : Make other ATM on a branch
  - ✧ Append to exist Branch record on ATM.BRANCH
    - ✓ DEVICE.ID : Last 4 character
    - ✓ DEV.ID.INT.ACCT: Cash account of ATM Machine

- Use when bank need to amend or create new transaction type
  - ✧ ID: ISO Message Number
  - ✧ MSG.TYPE :Informative field displays whether the mapping is for Request, Response or Error
  - ✧ APPLICATION :Valid Globus application
  - ✧ OFS.FUNCTION :Holds the OFS function
  - ✧ OFS.USER :User Sign on to be used by OFS
  - ✧ INTRF.FLD.NAME :Interface field name (Part of the message, descriptive)
  
  - ✧ INTRF.FLD.POS: Position of this field within the message.
  - ✧ GLO.FLD.NAME: Corresponding Globus <sup>TM</sup> application field name
  - ✧ Other reference in user guide

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# REPORT

- **ENQ.NOFILE.SPF**
- **E.ISO.ATM.BAL.ENQ**
- **ENQ.ISO.REQUEST**
- **ENQ.ISO.RESPONSE**
- **E.ISO.ATM.MINI.STMT**
- **E.ACCT.DETAILS**

