

1. What is the PWN_GateWay

1. Introduction

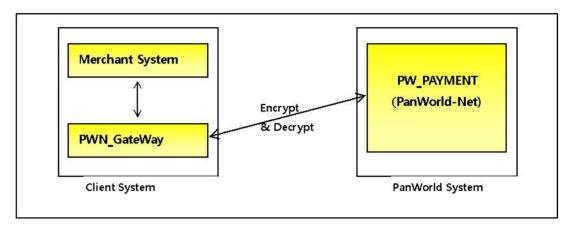
- 1> PWN_GateWay is a Client Side communication module provided by PanWorld-Net
- 2> PWN_GateWay is TCP/IP based API to communicate with encrypted data between Client and Server

2. System Installation Requirments

- 1> PWN_GateWay which is consisted of pureJAVA is able to install and operate with all the platforms using JVM, and also developed for various end-user interface (Unix, Linux, Windows)
- 2> PWN_GateWay provides executive files (batch file, shell file) in Unix, Linux, and Windows system.
- 3> PWN_GateWay operates under Java 1.5 system. For the stable user interface, it has to be upgraded to JVM version 1.5
- 4> For a compatability of client side developer, PWN_GateWay provides daily or increment log as a file type.

2. System Configuration and Installation Guide

1. Network Flow



2. PWN_GATEWAY Configuration

PWN_GATEWAY

|- lib : library Directory

|- bin : Executable File (shell, batch file)

|- doc : Manual

|- logs : Log File Directory

| - conf : Configuration File Directory

3. JDK, JRE Installation Guide

1> J2SDK,JRE Download URL : http://java.sun.com">http://java.sun.com >> Downloads >> Java SE >> Previous Releases >> J2SE 5.0 Downloads >> JDK 5.0 Update 17 >>select Platform & Language

2> Parameter configuration

* Windows

My computer properties >> Advanced (Tab) >> Environment Variable >> System Variable >> Add Path : ;C:\Program Files\Java\jdk1.5.0_17\bigwidehin

* Unix & Linux : vi /etc/profile

JAVA_HOME=/usr/java/jdk1.5.0_17

export JAVA HOME

PATH=\$PATH:\$JAVA_HOME/bin

CLASSPATH=\$CLASSPATH:\$JAVA_HOME/lib

3> Confirm Java installation interface

cmd >> java -version >> Enter

cmd >> java version "1.5.0_17"

* If it installed correctly, you can find version information.

4. PWN_GateWay Installation Guide

- 1> Unzip "PWN_GATEWAY.zip" in a preferred directory folder
- 2> Windows System

- * Execute "PWN_GATEWAY/bin/install.bat" with "NTService"
- * It will drive correctly, when "PWN_GATEWAY/bin/start.bat" is executed
- 3> Unix & Linux
 - * move PWN_GATEWAY/bin >> dos2unix *.sh
 - * PWN_GATEWAY/bin/start.sh >> You can see PWN_GATEWAY Started. ^^
- 4> Definition of each file of "bin"

* start.sh,start.bat : Program Start

* stop.sh,stop.bat : Program End

* restart.sh,restart.bat : Program Restart

* install.bat,uninstall.bat : Program Install and uninstall in NT platform

5. Definition of "service.xml" configuration file

- 1> PATH: PWN_GATEWAY/conf/service.xml
- 2> It includes network configuration information between PWN_GATEWAY and PW_PAYMENT
- 3> PWN_GATEWAY must be re-executed for normal system process when "Service.xml" was customized
- 4> Element Name of XML is unable to change. When it is changed, a module will not be executed

| | Element Name | VALUE |
|---|---------------|--|
| 1 | serverPort | Default "20000" |
| | | Port information for PWN_GATEWAY |
| | | Able to change regarding to MERCHANT configuration |
| 2 | serverTimeout | TIMEOUT between PWN_GATEWAY and MERCHANT SYSTEM |
| 2 | serverimeout | It consists of Millisecond |
| 3 | pwnServerIp | IP address of PW_PAYMENT Server |
| 4 | pwnServerPort | Port information of PW_PAYMENT server. |
| 5 | pwnTimeout | Timeout information of PW_PAYMENT server |

6. Definition of "NTWrapper.conf", and "log4j.properties"

1> "NTWrapper.conf" and "log4j.properties" is optimized for PWN_GATEWAY module *Please do not change above configuration on the franchise.

3. Communication Packet Definition

1. Consist of Specification

- 1> Specification is consisted of HEADER Part and DATA Part
- 2> Method to specification construction

| Ì | LENGTH | HEADER Part | DATA Part |
|---|--------|-------------|-----------|
| | LENGIN | HEADER FAIL | DATA FAIT |

3> Transmission Method

TCP/IP is formed of 1 HandShake, but Connection maintenance method is not supported.

- * Steps to Transmission
- a> Construction and Socket Connect
- b> Send
- c> Receive
- d> Socket Close
- 4> PWN_GATEWAY

For a normal data transmission, Company's encrypted communication with PW_PAYMENT server is required.

2. Character Construction Formation

1> CHAR: C(20): Character stands for "C", and "20" means length of 20 characters Not enough space for character length, you can put trailing Space (Filler) on the right of CHAR

Ex) C(20) : [ABCDEFGHIJ

2> NUMBER: N(10): Numbers are described as "N", and "10" means 10 digits Not enough space for Number, you can put "0" at left prior to number Ex) N(10): [0001234567]

3. Symbols for Sending & Receiving Transmission

1> © : Essential Sending/Receiving Transmission Zone

2> Option Zone

4. Transmission Specification

1> Header Part

| | NAME | DESC | TYPE | Sending | Receiving |
|----|----------------|---|--------|---------|-----------|
| 1 | SPEC_LENGTH | Total Length | N(4) | 0 | 0 |
| 2 | SPEC_TYPE | "CFIX": Fixed specification | C(4) | 0 | 0 |
| 3 | TRN_TYPE | "T001": Credit Card Payment "T002": Inquiry payment result "T003": Cancel payment | | 0 | 0 |
| 4 | MERCHANT_ID | ID for Each Merchant | C(20) | 0 | 0 |
| 5 | MALL_ID | ID for Low Level Merchant Mall | C(20) | 0 | 0 |
| 6 | SERVICE_TYPE | Connection Route Information for Merchant's Payment Ex) TERMINAL,MOBILE,WEB | | 0 | 0 |
| 7 | IP_ADDRESS | Customer's IP Information | C20) | 0 | 0 |
| 8 | TRN_DATE | Transaction Date (YYYYMMDDHHMMSS) | C(14) | 0 | 0 |
| 9 | TRN_RES_DATE | Transaction Response Date (YYYYMMDDHHMMSS) | C(14) | | 0 |
| 10 | PAY_NO | Merchant Order Number | C(50) | 0 | 0 |
| 11 | TRANSACTION_ID | Transaction Number (Accept Order / Cancel Order) | C(12) | | 0 |
| 12 | RESULT_CD | Respond Code regarding Payment Request "0": Transaction Completed "1": Transaction Failed "2": System Error | | | 0 |
| 13 | RESULT_MSG | Respond Code regarding Payment | C(4) | 8 | 0 |
| 14 | EXTRA | Extra Space | C(25) | 0 | 0 |
| | | | C(200) | | |

2> Credit Card Approval (T001)

| | NAME | DESC | TYPE | Symbol | Sending/Receiving |
|----|---------------|---|---------------|--------|-------------------|
| 1 | CARD_NUMBER | Credit Card Number | C(20) | 0 | 0 |
| 2 | CARD_EXPIRE | Credit Card Expiration Date (YYMM) | C(4) | 0 | 0 |
| 3 | CARD_CVV | Credit Card CVV number | C(3) | 0 | 0 |
| 4 | CARD_PASSWORD | Pin number | C(4) | 0 | 0 |
| 5 | CARD_EXTRA | Extra Parameter except for Credit Card. | C(10) | 0 | 0 |
| 6 | PAY_USERID | Merchant Membership ID (en-English) | C(50) | 0 | 0 |
| 7 | PAY_NAME | Name of Merchant Membership (en quad- English) | C(50) | 0 | 0 |
| 8 | PAY_TELNO | Member Telephone Number | C(20) | 0 | 0 |
| 9 | PAY_EMAIL | Member Email Address | C(100) | 0 | 0 |
| 10 | PRODUCT_TYPE | Type of Product ("0" :Goods "1":Contents) | C(2) | 0 | 0 |
| 11 | PRODUCT_NAME | Name of Product | C50) | 0 | 0 |
| 12 | AMOUNT | Amount of USD Ex) \$39.09 → "0000003909" Form of Amount x 100 | N (10) | 0 | 0 |
| 13 | CUR_TYPE | Currency Type - "USD" | C(3) | 0 | 0 |
| 14 | APPROVAL_NO | Approval Number | C(8) | | 0 |
| 15 | EXTRA | Merchant URL | C(66) | 0 | 0 |
| | | | C(400) | | |

| -REQ | · Control of the cont | - | | | | |
|---|--|-------------|---------|-------|----------------|--------------------|
| =[0596CFIXT001PANWO | RLD | 20010001 | V | /EB | 192.168.10.1 | 20081224203347 |
| PANWORLD_20 | 08122420334 | 7171 | *** | | | 4444 |
| 5555666677771009 | | _PAYUSERID_ | | | | PAYUSERNAME |
| 3,000 - 107 1 - 105 | PAYTELN | NUMBER | PAYUSEF | REMAI | L | ** |
| | | 1_PRODUC | CTNAME_ | | /34 | 000050000JP |
| Y | | | | |] | |
| -RES | | | | | | = |
| [0596CFIXT001PANWORL | .D | 20010001 | WE | B | 192.168.10.1 | 200812242033472008 |
| 1224203350PANWORLD_ | 20081224203 | 347171 | | | 08122400000300 | 000 |
| _4444555566667777 | 1009 | PAYUS | SERID | | | PAYUSERNAME |
| | P | aytelnumbei | RPA | XYUSE | REMAIL | |
| | | 1_PI | RODUCTN | AME_ | | 000005 |
| 0000JPY00203350 | | | | | 1 | |

3> Credit Card Cancelation (T002)

| | NAME | DESC | TYPE | Symbol | Sending/Receiving |
|----|-----------------|---|--------|--------|-------------------|
| 1 | VOID_TYPE | "1" : Transaction Number "2" : Merchant Order Number | C(1) | 0 | 0 |
| 2 | APPROVAL_DAY | Date to Approve (YYYYMMDD) | C(8) | 0 | 0 |
| 3 | RAPPROVAL_NO | Initial Transaction Approval Number | C(8) | 0 | 0 |
| 4 | RPAY_NO | Initial Transaction Order Number | C(50) | 0 | 0 |
| 5 | RTRANSACTION_ID | Initial KTT Transaction Number | C(12) | 0 | 0 |
| 6 | CARD_NUMBER | Credit Card Number | C20) | 0 | 0 |
| 7 | CARD_EXPIRE | Credit Card Expiration Date | C(4) | 0 | 0 |
| 8 | AMOUNT | Amount of USD Ex) \$39.09 → "0000003909" Form of Amount x 100 | N(10) | 0 | O |
| 9 | CUR_TYPE | Currency Type - "USD" | C(3) | 0 | 0 |
| 10 | APPRVAL_NO | Approval Number | C(8) | 0 | 0 |
| 11 | EXTRA | Extra Space | C(76) | 0 | 0 |
| | | | C(200) | | |

^{*} SPACE is declared as "_" for readability

| - | | | | |
|--------------------------------|----------------------|-------|----------------|----------------|
| REQ=[0396CFIXT002PANWORLD | 20010001 | WEB | 192.168.10.1 | 2008122420335 |
| 9PANWORLD_200812242 | 0335 9 140 | 98 85 | 220 800 | 8 |
| 120081224 | 500 | | | 000000000 |
| 0 | | |] | |
| = | | | | |
| RES=[0396CFIXT002PANWORLD | 20010001 | WEB | 192.168.10.1 | 20081224203359 |
| 20081224203401PANWORLD_2008122 | 2420335 9 140 | | 08122400000400 | 0000 |
| 12008122400203401PANWOR | LD_20081224203359 | 140 | 08122 | 24000005 |
| 0000000000 | and de se | *** | ** |] |
| | | | | |

^{*} In case of "VOID_TYPE = 1", it needs to transmit "RTRANSACTION_ID" only. For cancellation of a day after transaction, it transmits automatically to Card Company as a purchasing withdrawal level.

^{*} In case of "VOID_TYPE = 2", it is essential to transmit all filed values. After it is referred by PanWord-net system, it will be withdrawn. It is highly recommended to customers to bring "TRANSACTION_ID" using T003(至刻) and transmit withdrawal data using "VOID_TYPE =1" when communication error

4> Credit Card Transaction Reference (T003)

| | NAME | DESC | ТҮРЕ | Symbol | Sending/Receiving |
|---|----------------|-------------------------|--------|--------|-------------------|
| 1 | RPAY_NO | Initial Order Number | C(50) | 0 | 0 |
| 2 | TRN_TYPE | Transcation Type - T001 | C(4) | 0 | 0 |
| 3 | RESULT_CD | Result of Type | C(1) | | 0 |
| 4 | RESULT_MSG | Amount of Approval | C(4) | | 0 |
| 5 | TRANSACTION_ID | Transaction Number | C(12) | | 0 |
| 6 | APPROVAL_NO | Approval Number | C(8) | | 0 |
| 7 | EXTRA | Extra Space | C(121) | | |
| | | | C(200) | | |

^{*} SPACE is declared as "_" for readability

| REQ=[0396CFIXT003PANWORLD | 20010001 | WEB | 192.168.10.1 | 2008122420341 |
|--------------------------------|------------|--------|-----------------|----------------|
| 1PANWORLD_200812242 | 03411312 | 121 | 50 | 42 |
| PANWORLD_20081224203411312 | *** | 000000 | 0000000 | 100 |
| | | 24 | | J |
| = | | | | |
| RES=[0396CFIXT003PANWORLD | 20010001 | WEB | 192.168.10.1 | 20081224203411 |
| 20081224203414PANWORLD_2008122 | 4203411312 | | 08122400000600 | 0000 |
| PANWORLD_200812242034113 | 312 | T00100 | 000081224000007 | 00203414 |
| | | | | 1 |