
NETePay 5.0
Installation & Configuration Guide

Mercury Payment Systems
Canadian EMV
With Dial Backup

Part Number: 8705.27

NETePay Installation & Configuration Guide

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Version Support

This document supports the following application versions:

NETePay 5.0 (Mercury - Canadian EMV) 5.02

DSIEMVClientX, Version 1.06

Payment Processor Support

This document supports the following payment processor:

Mercury - Canadian EMV

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OVERVIEW

Introduction

About NETePay

Developed by Datacap Systems, *NETePay* enables retail, restaurant and other businesses to perform fast electronic payment authorizations via the Internet. *NETePay* also incorporates automatic dialup backup direct to the processing host in the event of an Internet outage. The dial backup operation is completely automatic and switches back to Internet operation without operator intervention.

NETePay is multi-threaded to accept simultaneous requests from multiple clients, and scalable so that customers can configure their store systems to fit their requirements and get the most favorable rates from their payment service.

What's Included on your CD

The *NETePay* CD-ROM includes client and server applications for Windows 2000, XP and Vista Business Edition operating systems for both single and multi-pay point users.

- ***NETePay with Dial Backup*** – server-side software that enables you to process payment authorization requests via the Internet or other TCP/IP Virtual Private Network (VPN) services.
- ***DSIEMVClientX*** – an ActiveX control that integrates with a Point of Sale application and sends encrypted payment authorization requests from client machines on a LAN to *NETePay* for processing. *DSIEMVClientX* also controls the attached EMV compatible PIN pad device.
- ***Microsoft MSDE Database Engine*** – this software provides database services to *NETePay* and ePay Administrator using Microsoft MSDE for Windows 2000 and XP users.
- ***SQL Express 2005*** - this software provides database services to *NETePay* and ePay Administrator using Microsoft SQL Express for Windows Vista or Windows Server 2008 users.
- ***SQL Express 2008*** - this software provides database services to *NETePay* and ePay Administrator using Microsoft SQL Express for Windows Vista and Windows 7 users.
- ***Microsoft Internet Explorer 6.0*** – this version (or later) of Microsoft Internet Explorer will ensure that you can install the necessary encryption capability required for *NETePay*.

How it works

NETePay is an application that resides on a server (either at the store level or remotely, at the enterprise level) monitors encrypted transaction requests from client machines using a POS or restaurant application integrated with *DSIEMVClientX*, Datacap's XML ActiveX control.

When *NETePay* receives an encrypted transaction request from a client machine, it sends the request to the bankcard processor for approval via the Internet or PSTN dialup direct to the processing host. The transactions are then stored in a database that resides on the server. *NETePay* makes use of 128-bit encryption to provide secure transactions over the Internet.

SECURITY IMPLEMENTATION GUIDELINE

Introduction

Systems which process payment transactions necessarily handle sensitive cardholder account information. The card associations (VISA, MasterCard) have developed security standards for handling cardholder information in a published document named *Payment Card Industry (PCI) Data Security Standard (DSS)*.

The security requirements defined in the standard apply to all members, merchants, and service providers that store, process or transmit cardholder data.

The PCI Data Security Requirements apply to all **system components** which is defined as any **network component, server, or application** included in, or connected to, the cardholder data environment. Network components, include, but are not limited to, firewalls, switches, routers, wireless access points, network appliances, and other security appliances. Servers include, but are not limited to, Web, database, authentication, Domain Name Service (DNS), mail, proxy, and Network Time Protocol (NTP). Applications include all purchased and custom applications, including internal and external (Web) applications.

The following **12 Requirements** comprise the Payment Card Industry Data Security Standard.

Build and Maintain a Secure Network

1. Install and maintain a firewall configuration to protect data
2. Do not use vendor-supplied defaults for system passwords and other security parameters

Protect Cardholder Data

3. Protect Stored Data
4. Encrypt transmission of cardholder data and sensitive information across public networks

Maintain a Vulnerability Management Program

5. Use and regularly update anti-virus software
6. Develop and maintain secure systems and applications

Implement Strong Access Control Measures

7. Restrict access to data by business need-to-know
8. Assign a unique ID to each person with computer access
9. Restrict physical access to cardholder data

Regularly Monitor and Test Networks

10. Track and monitor all access to network resources and cardholder data
11. Regularly test security systems and processes

Maintain an Information Security Policy

12. Maintain a policy that addresses information security

Access Control

The PCI standard requires that access to all systems in the payment processing environment be protected through use of unique users and complex passwords. Unique user accounts indicate that every account used is associated with an individual user and/or process with no use of generic group accounts used by more than one user or process. Additionally any default accounts provided with operating systems, databases and/or devices should be removed/disabled/renamed if possible, or at least should have complex passwords and should not be used. Examples of such default administrator accounts include administrator (Windows systems), sa (SQL/MSDE), and root (UNIX/Linux).

The PCI standard requires the following password complexity for compliance:

- Passwords must be at least 7 characters
- Passwords must include both numeric and alphabetic characters
- Passwords must be changed at least every 90 days
- New passwords can not be the same as the last 4 passwords

Below are the other PCI account requirements beyond uniqueness and password complexity:

- If an incorrect password is provided 6 times the account should be locked out
- Account lock out duration should be at least 30 min. (or until an administrator resets it)
- Sessions idle for more than 15 minutes should require re-entry of username and password to reactivate the session.

These same account and password criteria must also be applied to any applications or databases included in payment processing to be PCI compliant.

Remote Access Control

The PCI standard requires that if employees, administrators, or vendors can access the payment processing environment remotely; access should be authenticated using a 2-factor authentication mechanism (username/ password and an additional authentication item such as a token or certificate).

In the case of vendor remote access accounts, in addition to the standard access controls, vendor accounts should only be active while access is required to provide service, should include only the access rights required for the service rendered, and should be robustly audited.

Access to hosts within the payment processing environment via 3rd party remote access software such as Remote Desktop (RDP)/Terminal Server, PCAnywhere, etc. requires that when such programs are used that these sessions are encrypted with at least 128 bit encryption (this requirement is in addition to the requirement for 2-factor authentication required for users connecting from outside the payment processing environment). For RDP/Terminal Services this means using the high encryption setting on the server, and for PCAnywhere it means using symmetric or public key options for encryption.

NETePay 5.0 does not directly support remote access for maintenance, monitoring, operation, troubleshooting or updates. Datacap Systems does not use remote access software to deliver any services, software, or support to users of NETePay 5.0. If merchants, integrators or resellers elect to use third party remote access independent of NETePay 5.0, they should observe the following remote access procedures:

- *Change default settings in the remote access software (for example, change default passwords and use unique passwords for each customer).*
- *Allow connections only from specific (known) IP/MAC addresses.*
- *Use strong authentication and complex passwords for logins according to PCI DSS Requirements 8.1, 8.3, and 8.5.8–8.5.15*
- *Enable encrypted data transmission according to PCI DSS Requirement 4.1*
- *Enable account lockout after a certain number of failed login attempts according to PCI DSS Requirement 8.5.13*
- *Configure the system so a remote user must establish a Virtual Private Network (“VPN”) connection via a firewall before access is allowed.*
- *Enable the logging function.*
- *Restrict access to customer passwords to authorized reseller/integrator personnel.*
- *Establish customer passwords according to PCI DSS Requirements 8.1, 8.2, 8.4, and 8.5.*

Wireless Access Control

The PCI standard requires the encryption of cardholder data transmitted over wireless connections. The following items identify the PCI standard requirements for wireless connectivity to the payment environment:

- Firewall/port filtering services should be placed between wireless access points and the payment processing environment with rules restricting access
- Use of appropriate encryption mechanisms such as **VPN, SSL/TPS at 128 bit, WEP at 128 bit, and/or WPA**
- If WEP is used the following additional requirements must be met:
 - Another encryption methodology must be used to protect cardholder data
 - If automated WEP key rotation is implemented key change should occur every 10-30 minutes
 - If automated key change is not used, keys should be manually changed at least quarterly and when key personnel leave the organization
- Vendor supplied defaults (administrator username/password, SSID, and SNMP community values) should be changed
- Access point should restrict access to known authorized devices (using MAC Address filtering)

Network Encryption

The PCI standard requires the use of strong cryptography and encryption techniques (at least 128 bit); such as Secure Sockets Layer (SSL) and Internet Protocol Security (IPSEC) to safeguard sensitive cardholder data during transmission over public networks (like the Internet).

Additionally PCI requires that cardholder information never be sent via e-mail without strong encryption of the data.

Network Security

ePay Administrator and ePay Administrator for NETePay may be installed on other computers on the network rather than on the computer on which the NETePay server is installed. *If either of these ePay Administrators is installed remotely in this manner, you should enable SSL encryption for the instance of MSD or SQL Express by using Microsoft Management Console.*

NETePay Compliance

All versions of **NETePay** at or above Version 5.00 implement all of the PCI Data Security Standard requirements that are applicable to a payment processing application.

- **NETePay** does not store any magnetic stripe (Track 1 or 2), card verification (CVV, CVV2, etc.) or PIN data, ever.
- **NETePay** truncates all account and expiration date information for transactions which have been settled in every area where it is either stored or displayed.
- **NETePay** encrypts account numbers and expiration dates for transactions which have not yet been settled.
- **NETePay** logs only record truncated account number and expiration date information and never record any magnetic stripe (Track 1 or 2), card verification (CVV, CVV2, etc) or PIN data, ever. NETePay 5.0 logs are fixed in function, format and contents and cannot be disabled or configured by any user.
- **NETePay** utilities which present data in a user interface (display or print) always truncate account number and expiration date data and never display magnetic stripe (Track 1 or 2), card verification (CVV, CVV2, etc) or PIN data, ever.
- **NETePay** encrypts all IP transmissions that contain cardholder data using current SSL/TLS standards.
- **NETePay** does not allow or facilitate sending of PANs (Primary Account Numbers) by end user messaging technologies; however if a merchant, integrator or reseller transmits information of this type, a solution that implements strong cryptography should be employed.

Baseline System Configuration

To realize the maximum security from *NETePay*, the server on which it is installed should meet or exceed the following system requirements:

- Microsoft Windows 2000 Professional with Service Pack 4, Windows XP Pro with Service Pack 2, Windows Vista Business Edition, Windows 7, Windows Server 2003 or 2008. All latest updates and hotfixes should be applied.
- 1 GB of RAM minimum, 2 GB or higher recommended
- 10 GB of available hard-disk space
- Microsoft Internet Explorer with 128-bit encryption, Microsoft Internet Explorer 6.0 or higher recommended
- TCP/IP network connectivity.
- Microsoft Internet Explorer with 128-bit encryption, Microsoft Internet Explorer 6.0 or higher recommended
- TCP/IP network connectivity.
- Available COM port (if using dial backup or dial primary communications)
- Datacap DialLink modem (if using dial backup or dial primary communications)
- Persistent Internet Connection (DSL, cable, frame relay, etc.)

Additional System Security Recommendations

Although *NETePay* 5.0 implements all of the PCI Data Security Standard requirements which are applicable to a payment processing application, additional overall security can be realized by implementing the following:

- Use a router which implements NAT (Network Address Translation).
- Use antivirus software with auto update capability, from vendors such as McAfee, Norton, Panda, Kaspersky, Trend Micro, etc.
- Enable firewall services (either software based like Windows Firewall or hardware based) between the payment processing environment and the internet access device (typically an ISP provided router/modem).
- Define and use strong passwords to restrict access to authorized personnel.
- Test and install security related Windows and SQL/MSDE updates, service packs and hotfixes promptly. Consider using automatic updating.

POS System Considerations

Although NETePay 5.0 implements all of the PCI Data Security Standard (DSS) requirements that are applicable to a payment processing application, your POS application may not handle cardholder information in such a secure fashion.

PCI Data Security requirements must be implemented in all the components of a system which handle cardholder data in order to provide comprehensive security. The PCI Data Security requirements *must* be implemented in your POS system and any other applications which handle cardholder data. You should verify with your POS system provider that the version of the POS software you are using is compliant.

Removal of Historical Data

If you are upgrading to NETePay 5.0 from a previous version, you should securely delete the previous NETePay database and logs before upgrade installation. NETePay normally truncates and deletes any sensitive information for all settled transactions but to assure there are no residual unsettled transactions; the following procedure should be followed to delete the previous NETePay database, any backups and all logs:

1. Shut down **NETePay**
2. Using Windows Control Panel, select Add/Remove Programs
3. Select **NETePay** and remove it
4. Locate the **NETePay** folder in <bootdrive>:\Program Files\Datacap Systems and use a secure file deletion utility to remove it
5. Install **NETePay 5.0**
6. From the **Programs/Software from Datacap** group, run the **NETePay Database Manager**
7. Select Connect
8. Select Create New Database
9. Shut down **NETePay Database Manager**
10. Start **NETePay 5.0**

Information Handling and Collection Criteria

NETePay 5.0 and all of its components handle sensitive cardholder data in accordance with the PA-DSS 1.2 standard of the PCI Data Security Council. However, NETePay 5.0 does not monitor the activities of users or other software to assure that they accord sensitive data the same standards. Merchant, and reseller/integrators should adhere to the following guidelines if they handle cardholder information:

- Collect sensitive authentication only when needed to solve a specific problem.
- Store such data only in specific, known locations with limited access.
- Collect only the limited amount of data needed to solve a specific problem.
- Encrypt sensitive authentication data while stored.
- Securely delete such data immediately after use.

NETePay 5.0 only stores cardholder information only for unsettled transactions. Once NETePay 5.0 settles transactions, all cardholder information is either deleted or truncated. The merchant, integrator or reseller does not need to manage retention of cardholder data in NETePay 5.0 beyond assuring that transactions are settled in a timely manner.

NETePay 5.0 logs are fixed in function, format and contents and cannot be disabled or configured by any user. NETePay 5.0 logs only record truncated account number and expiration date information and never record any magnetic stripe (Track 1 or 2), card verification (CVV, CVV2, etc) or PIN data.

NETePay 5.0 does not allow or facilitate sending of PANs (Primary Account Numbers) by end user messaging technologies; however if a merchant, integrator or reseller transmits information of this type, a solution that implements strong cryptography should be employed.

Security Action Plan

In addition to the preceding security recommendations, a comprehensive approach to assessing the security compliance of your entire system is necessary to protect you and your data. The following is a basic plan every merchant should adopt.

1. Read the PCI Standard in full and perform a security gap analysis. Identify any gaps between existing practices in your organization and those outlined by the PCI requirements.
2. Create an action plan for on-going compliance and assessment. Once the gaps are identified, companies must determine the steps needed to close the gaps and protect cardholder data. It could mean adding new technologies to shore up firewall and perimeter controls, or increasing the logging and archiving procedures associated with transaction data.
3. Implement, monitor and maintain the plan. Compliance is not a one-time event. Regardless of merchant or service provider level, all entities must complete annual self-assessments using the PCI Self Assessment Questionnaire.
4. Call in outside experts as needed. Visa has published a Qualified Security Assessor List of companies that can conduct on-site CISP compliance audits for Level 1 Merchants, and Level 1 and 2 Service Providers. MasterCard has a Compliant Security Vendor List of SDP-approved scanning vendors.

Implementation Guide Reviews and Updates

Datacap Systems reviews the NETePay 5.0 Implementation Guide and issues updates to maintain compliance at least once per year or whenever a software change warrants. This implementation guide is also incorporated as part of every NETePay Installation and User Guide. The latest version, which is supplied on the distribution CD, may also be downloaded from Datacap's site at www.datacapepay.com in the NETePay section separately at any time.

Development and Deployment of Security Updates

Datacap is committed to timely development and deployment of security patches. When a vulnerability is detected, we will develop and deploy an updated NETePay executable within 30 days of discovery. These update will be delivered using a known chain of trust. A technical notice will be sent out via email and the update will be made available on our web site. The update file can then be downloaded directly. The update files are digitally signed to verify their authenticity.

More Information

You may download a copy of the *Payment Card Industry (PCI) Data Security Standard* from the PCI Security Standards Council website at the following Internet address:

https://www.pcisecuritystandards.org/security_standards/pci_dss_download_agreement.html

Additional information for merchants from the PCI Security Standards Council is available at the following Internet address:

http://www.pcisecuritystandards.org/education/fact_sheets.shtml

A listing in PDF format of qualified security assessors from the PCI Security Standards Council is available at the following Internet address:

http://www.pcisecuritystandards.org/pdfs/pci_qsa_list.pdf

INSTALLATION

Introduction

This chapter explains how to install and configure the following *NETePay* components for Canadian EMV operation.

- *NETePay*
- *DSIClientX*
- Microsoft MSDE or SQL Express Database Engine
- Microsoft Internet Explorer 6.0 (or later) with High Encryption

You will need to install all the components on the server.

Each client machine will require *DSIEMVClientX* installed.

If you are using version 5.1 (or later) of Microsoft Internet Explorer that already has high encryption, installation of Microsoft Internet Explorer 6.0 (or later) with High Encryption is optional. If you are using a version prior to 5.1, you must upgrade your Internet Explorer installation.

Requirements

Baseline System Configuration

To successfully install and run *NETePay* on your server, it should meet or exceed the following system requirements:

- Microsoft Windows 2000 Professional with Service Pack 4, Windows XP Pro with Service Pack 2, Windows Vista Business Edition, Windows Server 2003 or 2008, or Windows 7. All latest updates and hotfixes should be applied.
- 2 GB of RAM minimum, 4 GB or higher recommended
- 25 GB of available hard-disk space
- Microsoft Internet Explorer with 128-bit encryption, Microsoft Internet Explorer 6.0 or higher recommended
- TCP/IP network connectivity.
- Persistent Internet Connection (DSL, cable, frame relay, etc.)
- Available COM port for connection of supported Canadian EMV PIN pad (VFI Vx810)
- Available COM port (if using dial backup or dial primary communications)
- Datacap DialLink modem (if using dial backup or dial primary communications)

Network Requirements

- Before installing *NETePay* or any of its components, you should know the names and IP addresses of the servers receiving transactions. For remote servers or enterprise systems, it may be necessary to contact your network administrator or your merchant service provider
- You should also make port 9000 on the *NETePay* server available for incoming traffic if you are behind a firewall and connected to the default port.

Installation Procedures

Accessing the NETePay CD-ROM

Before you begin installing *NETePay* and its components, you should close all unnecessary programs and disable any anti-virus software.

Use either of the following procedures to access the folders that contain the setup programs for *NETePay* and its components:

1. Insert the CD-ROM labeled *NETePay* into the server's CD-ROM drive.
If you have Window's AUTORUN feature enabled for your CD/DVD, then you will be presented with the following window:

datacap systems, inc.		Reliable Integrated E-Payment Solutions
	Open Installation & Configuration Guide	This document (ReadMe.pdf) describes the installation and setup of NETePay for Mercury Payment Systems (MPS) EMV Processing. Requires Acrobat Reader
STEP 1.	For Windows 2000, XP, 2003 Server Install MSDE Datacap Instance OR For Windows Vista, 2008 Server Install SQL Express 2005 Datacap Instance OR For Windows 7 Install SQL Express 2008 Datacap Instance	For Windows 2000, XP or 2003 Server, NETePay requires this installation of SQL (MSDE) Server for batch management and reporting. If upgrading from an earlier version of NETePay where MSDE - Datacap Instance was previously installed, skip this step. For Windows Vista or 2008 Server, NETePay requires this installation of SQL Express 2005 Server for batch management and reporting. If upgrading from an earlier version of NETePay where SQL Express 2005 - Datacap Instance was previously installed, skip this step. For Windows 7, NETePay requires this installation of SQL Express 2008 Server for batch management and reporting. If upgrading from an earlier version of NETePay where SQL Express 2008 - Datacap Instance was previously installed, skip this step.
STEP 2.	Install NETePay	The NETePay Server communicates with Mercury's SSL Public IP Gateway in order to process Credit cards and Canadian Debit cards.
OPTIONAL	Install DSIEMVClientX	DSIEMVClientX is an ActiveX control integrated into POS systems used in Canada for sending transactions to NETePay. DSIEMVClientX should be installed with the POS system software.

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2. If AUTORUN is not enabled on your system, then you should open **My Computer**, and then double-click the drive that contains the *NETePay* CD-ROM. The following window appears. Double click SETUP (or SETUP.EXE) to install NETePay.

Name ^	Date modified	Type	Size
program files	11/11/2010 9:09 AM	File folder	
System32	11/11/2010 9:09 AM	File folder	
Windows	11/11/2010 9:09 AM	File folder	
0x0409.ini	5/21/2009 3:53 PM	Configuration settings	21 KB
instmsiw.exe	11/28/2004 8:53 AM	Application	1,780 KB
NETePay 5.0 (MPS 5.02) Mercury Pay EMV.msi	8/31/2010 4:11 PM	Windows Installer Package	2,598 KB
setup.exe	8/31/2010 4:11 PM	Application	999 KB
Setup.ini	8/31/2010 4:10 PM	Configuration settings	3 KB
WindowsInstaller-KB893803-x86.exe	5/16/2005 4:42 PM	Application	2,525 KB

From either of these windows, you can install *NETePay* and its components.

3. ***You must be logged in as an 'Administrator' to install NETePay and all of its components.*** Installations performed when logged on as another user with rights less than 'Administrator' will not operate correctly.

Installing/Upgrading Microsoft Internet Explorer

NETePay uses Windows encryption services and requires that Internet Explorer with 128 bit encryption strength be installed on each system in the LAN. If needed, you must install or upgrade your server and each computer on the LAN with a version of Microsoft Internet Explorer that supports 128-bit encryption.

If needed, use the Windows Update on each PC to upgrade an existing version of IE to one that supports at least 128 bit encryption.

Installing MSDE (Required for Windows 2000, XP, Windows Server 2003)

Note: You must be logged in as an 'Administrator' to install NETePay and all of its components. Installations performed when logged on as another user with rights less than 'Administrator' will not operate correctly. Do not use MSDE for Vista installation; see next section for SQL Express installation.

To install the MSDE Database Engine:

1. Open the MSDE-DatcapInstance folder on the *NETePay* CD-ROM and double-click **setup** (or setup.exe).
2. Accept all default values and click **NEXT** or **INSTALL** as requested.
3. Upon successful completion, you will be prompted to restart.
4. Click **Yes** to restart the computer. ***It is very important to restart at this time to avoid configuration problems!***

Note: When MSDE is installed, an application named **NETePay Database Manager** is also installed in the Software from Datcap program group. This application provides basic maintenance functions, such as backup, restore and purge, and is covered in Chapter 5.

Installing SQL Express 2005 (Required for Windows Vista, Windows Server 2008)

Note: You must be logged in as an 'Administrator' to install NETePay and all of its components. Installations performed when logged on as another user with rights less than 'Administrator' will not operate correctly.

To install the SQL Express 2005:

1. Open the *SQL Express 2005 DatcapInstance 1.00* folder on the *NETePay* CD-ROM and double-click **setup** (or setup.exe).
2. Accept all default values and click **NEXT** or **INSTALL** as requested.
3. Upon successful completion, you will be prompted to restart.
4. Click **Yes** to restart the computer. ***It is very important to restart at this time to avoid configuration problems!***

Note: When SQL Express 2005 DatcapInstance is installed, an application named **NETePay Database Manager** is also installed in the Software from Datcap program group. This application provides basic maintenance functions, such as backup, restore and purge, and is covered in Chapter 5.

Installing SQL Express 2008 (Required for Windows Vista, Windows 7)

Note: You must be logged in as an 'Administrator' to install NETePay and all of its components. Installations performed when logged on as another user with rights less than 'Administrator' will not operate correctly.

To install the SQL Express 2008:

1. Open the *SQL Express 2008 DatacapInstance 1.00* folder on the NETePay CD-ROM and double-click **setup** (or setup.exe).
2. Accept all default values and click **NEXT** or **INSTALL** as requested.
3. Upon successful completion, you will be prompted to restart.
4. Click **Yes** to restart the computer. ***It is very important to restart at this time to avoid configuration problems!***

Note: When SQL Express 2008 DatacapInstance is installed, an application named **NETePay Database Manager** is also installed in the Software from Datacap program group. This application provides basic maintenance functions, such as backup, restore and purge, and is covered in Chapter 5.

Installing NETePay (Required)

Note: You must be logged in as an 'Administrator' to install NETePay and all of its components. Installations performed when logged on as another user with rights less than 'Administrator' will not operate correctly.

To install the NETePay Server software:

1. Open the NETePay Server folder on the NETePay CD-ROM and double-click **setup** (or setup.exe).
2. The installation wizard will start. When the Welcome screen appears, click **Next**.
3. Read and accept the End User License agreement and click **Next**.
4. Enter your **User Name** and **Organization**. If available on your operating system, make the application available to all users.
5. Click **Next**, then click **Install**. The installation wizard will then begin installing the necessary files on your computer.
6. Click **Finish** to complete the installation. A pop-up message will then appear and inform you to restart the computer.
7. Click **Yes** to restart the computer. ***It is very important to restart at this time to avoid configuration problems!***

Installing DSIEMVClientX ActiveX Control (Required)

Note: You must be logged in as an 'Administrator' to install NETePay and all of its components. Installations performed when logged on as another user with rights less than 'Administrator' will not operate correctly.

Important:

DSIEMVClientX is specific for use with NETePay servers that process Canadian EMV transactions. The standard **DSIClientX** ActiveX control will not operate with NETePay servers designed for Canadian EMV transaction processing.

Important:

DSIEMVClientX requires that a properly programmed and encrypted Canadian EMV PIN Pad must be attached to a serial port on every POS workstation that will use **DSIEMVClientX**. Contact your Canadian EMV processing provider for assistance in procuring EMV PIN pads for configured for your specific merchant account.

To install the **DSIEMVClientX** ActiveX control :

1. Open the DSIEMVClientX folder on the *NETePay* CD-ROM and double-click, **setup.exe**.
2. The installation wizard will start. When the Welcome screen appears, click **Next**.
3. Read and accept the End User License agreement and click **Next**.
4. Read the notes pertaining to *DSIEMVClientX* installation and click **Next**.
5. Enter your User Name and Organization.
6. If the option is available, make the application available to all users.
7. To begin installing the necessary files on your computer, click **Next**, then click **Install**.
8. To complete the installation process, click **Finish**. A pop-up message will then appear and inform you to restart the computer.
9. Click **Yes** to restart the computer.

Installing Datacap DialLink Modem (Required for Dial Operations)

Note: To use the dial capabilities of NETePay (either as backup or primary communications), a **Datacap DialLink** modem (not a **DataTran**) must be attached to an available COM port on the PC.

To install the *Datacap DialLink* modem for NETePay:

1. Connect the uDIN8 connector of the interface cable to the Datacap DialLink modem PC/ECR port.
2. Connect the DB9 end of the interface cable to the intended COM port on the PC.
3. Connect one end of the RJ11 cable to the TELCO connector on the Datacap DialLink modem.
4. Connect the other end of the RJ11 cable to a working phone line jack. No other devices should be connected to this phone line and plain old telephone service (POTS) line is best.
5. Connect the transformer to the POWER connector on the Datacap DialLink modem.
6. Plug the transformer into a suitable 110VAC outlet. It is strongly recommended that a surge protector be used with the Datacap DialLink modem.

NETePay CONFIGURATION

Introduction

This chapter explains how to activate and configure Canadian EMV capable *NETePay 5.0* for use. *NETePay* is activated and programmed over the Internet so a working Internet connection is required for the process.

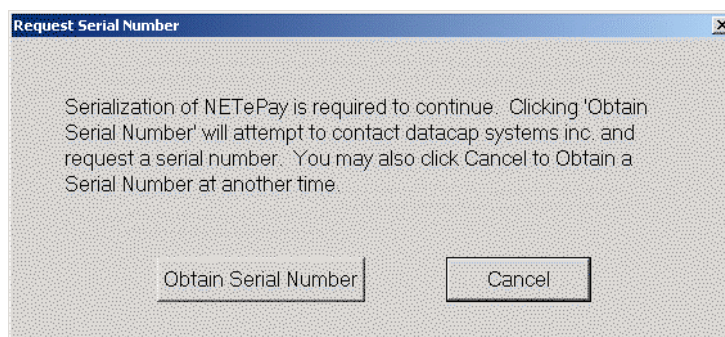
Note

Firewalls, routers or other systems that can block IP network traffic must allow *NETePay* to accept traffic on port 9000.

NETePay must complete two actions on the Internet before it is ready to process transactions. The first is to obtain a license file from Datacap's PSCS (Payment Systems Configuration Server) system. The second is to retrieve merchant parameters from Datacap's PSCS server.

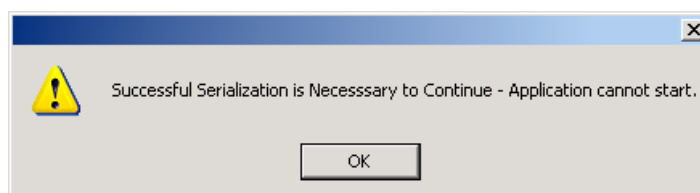
Activation and Parameter Download

1. On the first program launch after installation, *NETePay* must obtain a license file over the Internet from Datacap's PSCS (Payment Systems Configuration Server) system. When *NETePay* detects that a serial number is required, it presents the following dialog:



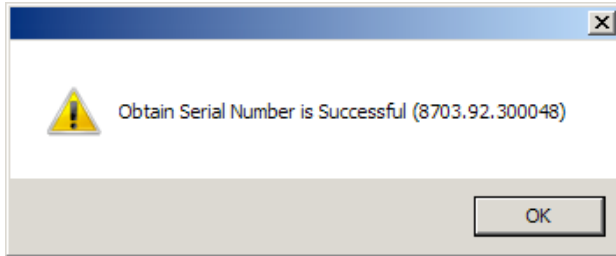
Click 'Obtain Serial Number' to enable *NETePay* to contact PSCS for a serial number.

2. If *NETePay* is unsuccessful in obtaining a serial number, it will present the following dialog:

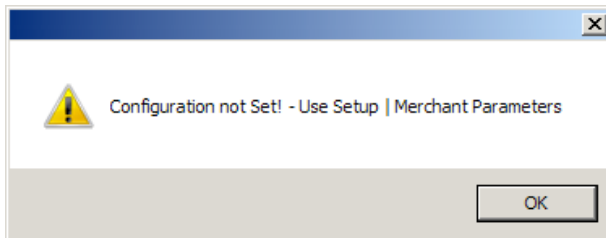


Click 'OK' and NETePay will close. Failure to successfully obtain a serial number means that NETePay was not able to contact Datacap's PSCS server over the Internet to obtain a serial number. Assure that the Internet connection is operating properly by using the default web browser on the machine where NETePay is installed to contact www.datacapystems.com. If you are successful in contacting Datacap's website, close the browser, restart NETePay and click 'Obtain Serial Number' again. If you continue to experience difficulties in obtaining a serial number, contact your network administrator to assure that there are no firewall or DNS issues.

3. At this point, NETePay could present two possible responses. If *NETePay is successful in obtaining a serial number but is unable to locate merchant parameters for the assigned serial number*, you will see the following dialog:

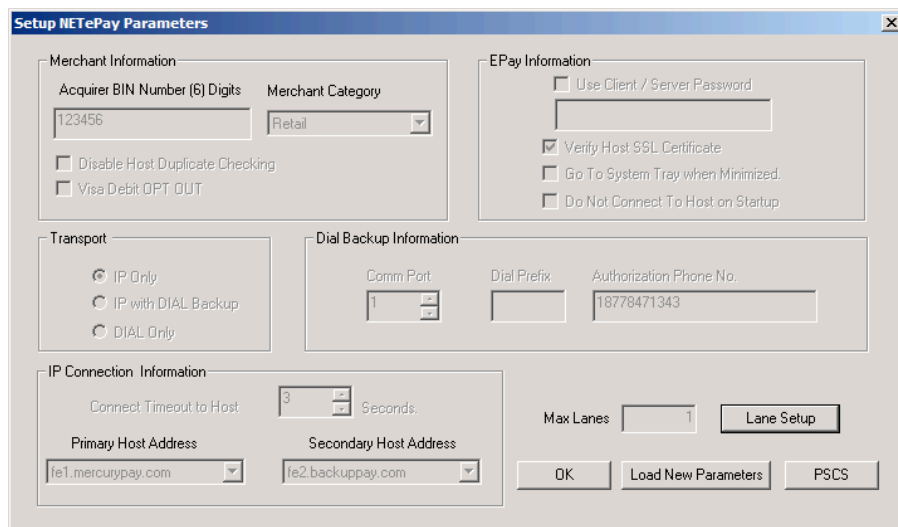


The dialog contains the 10 digit serial number that was automatically assigned to NETePay. Click 'OK' to continue and then you will see the following dialog:

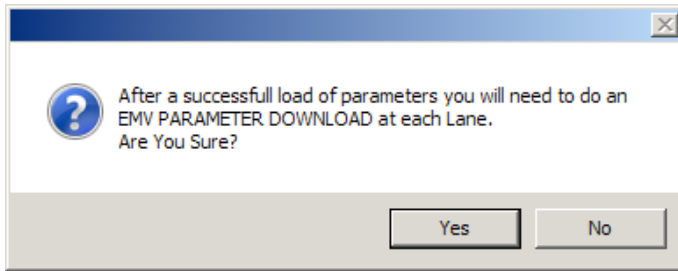


This dialog indicates that NETePay has not yet retrieved merchant parameters from Datacap's PSCS server and cannot operate until parameters are downloaded.

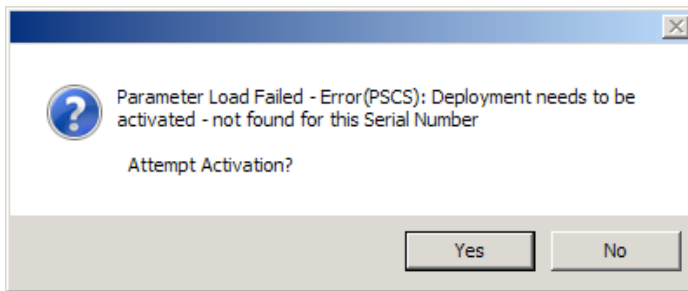
If a parameter file has been created on Datacap's PSCS server for the merchant account, then select 'Merchant Parameters' from the 'Setup' drop down menu. You will then see the following screen:



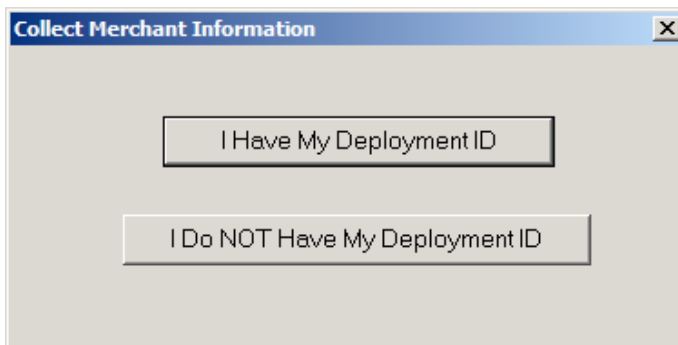
This setup screen displays the current values for the merchant parameters which are all 0's indicating that merchant parameters have not yet been loaded from Datacap's PSCS server. Click 'Load New Parameters' and you will see the following screen:



This dialog serves as a reminder that after a successful download of merchant parameters to NETePay, you will need to download EMV parameters locally to each EMV PIN pad using commands implemented in your POS software. Refer to your POS Software documentation for instructions on downloading EMV parameters to your PIN pads.

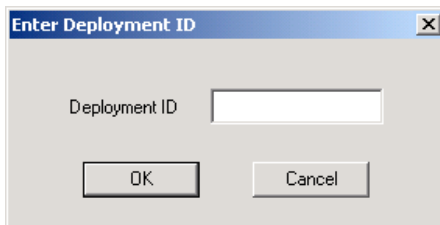


Click 'Yes' to attempt activation and you will see the following screen:



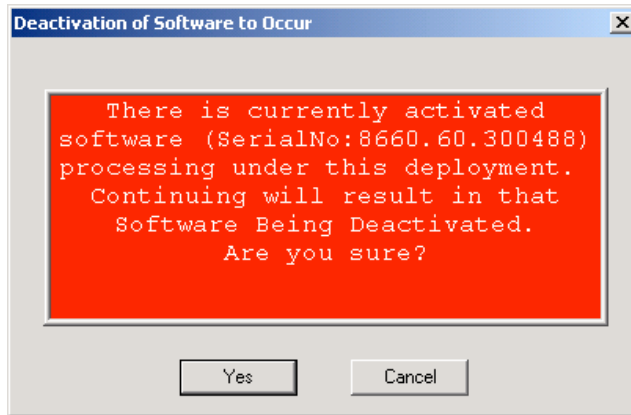
To continue, you must verify that you or someone else has created a Merchant Deployment on Datacap's PSCS server. If a deployment was created you may have been given a Deployment ID, which is typically an eight character code that has been assigned to the merchant's parameters. If you have a Deployment ID for the merchant, click 'I Have My Deployment ID'. If the merchant's parameters were created on PSCS but you do not have the Deployment ID, proceed to step 4.

When you click 'I Have My Deployment ID', you will see the following dialog:



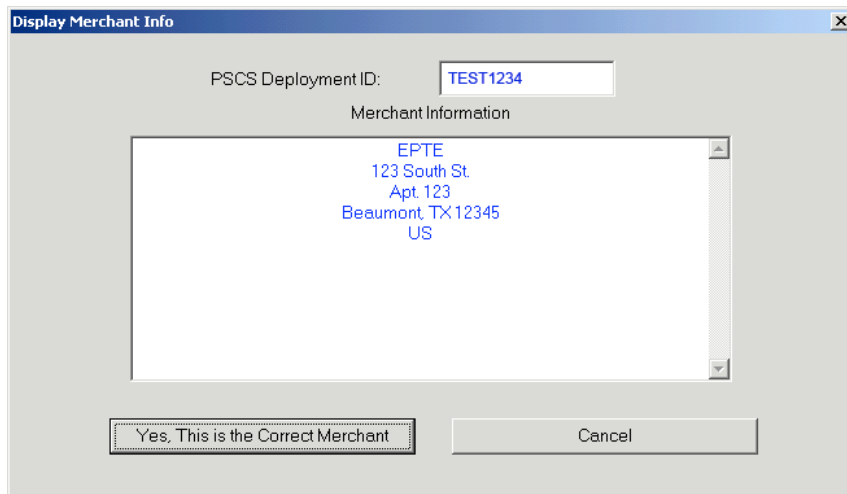
Enter the Deployment ID for the merchant parameter file and click 'OK'.

If NETePay detects that the Deployment ID is already in use by another serial number, you will see the following dialog:



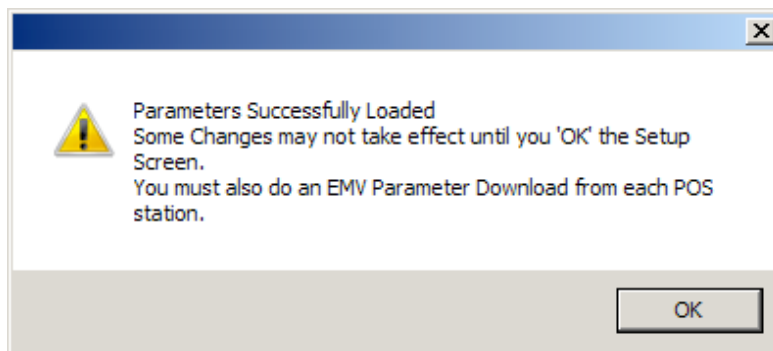
If you see this Deactivation Warning dialog, proceed to step 5.

NETePay will display a screen with merchant demographic data for you to verify as follows:

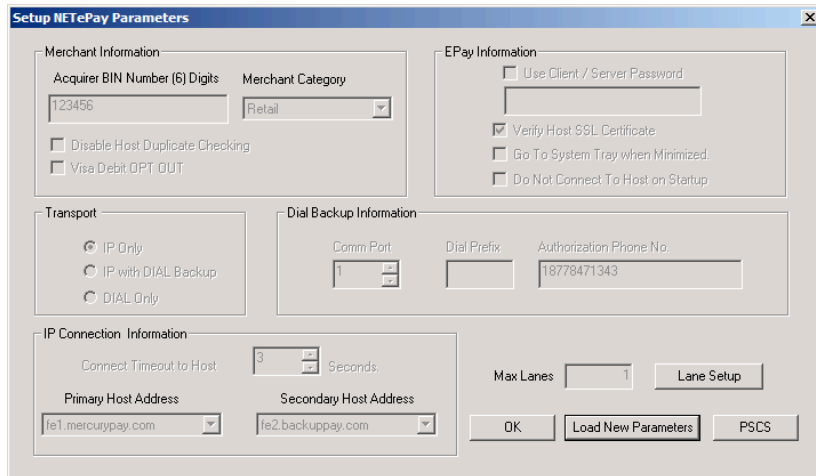


If the displayed information is not correct for the merchant site, click 'Cancel' and retry entry from the beginning of step 4. If the displayed information correctly identifies the merchant site, click 'Yes, This is the Correct Merchant'.

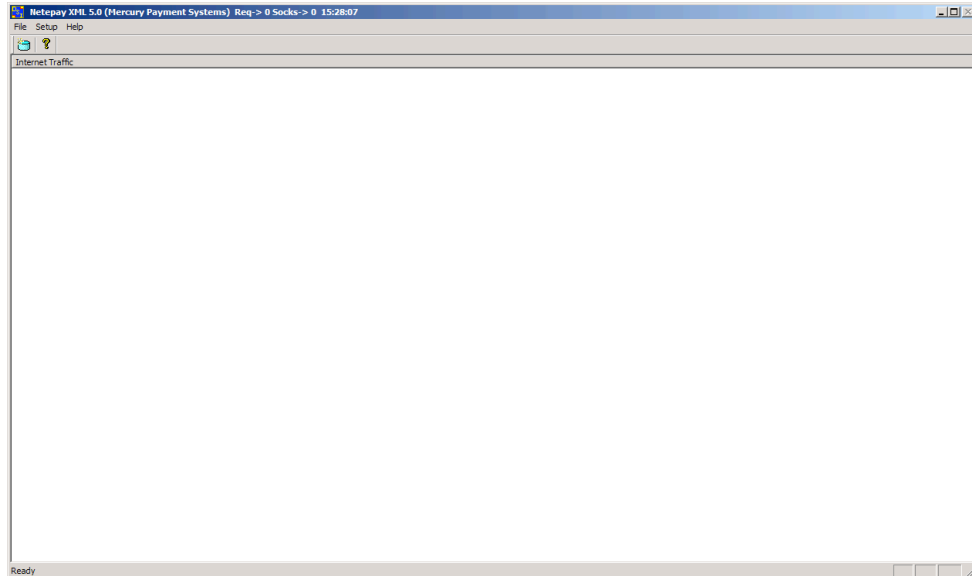
If NETePay successfully retrieves the parameters associated with the entered Deployment ID from the PSCS server, you will see the following dialog:



Click 'OK' and will then again see the setup screen as follows:

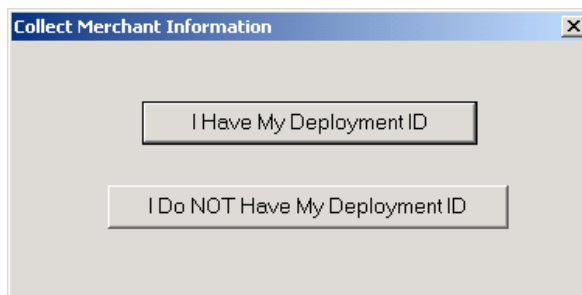


The setup screen now contains non-zero values in the text boxes throughout the screen indicating the values retrieved from Datacap's PSCS server. You should verify that the parameters are correct and then click 'OK' to complete the setup process. You will then see the NETePay main status window indicating that NETePay is now programmed and ready to process transactions.

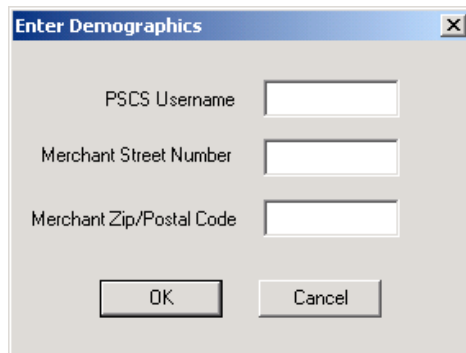


NETePay setup is complete.

4. If you don't have the PSCS Deployment ID for the merchant, click 'I Do NOT Have My Deployment ID' in the following dialog:



You will then see a dialog that will allow you to retrieve the PSCS merchant parameters from Datacap's PSCS server using merchant demographic information as follows:



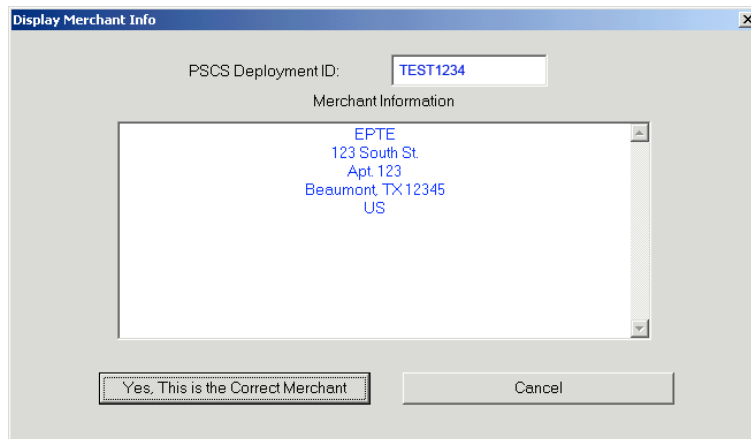
The 'Enter Demographics' dialog box contains three text input fields: 'PSCS Username', 'Merchant Street Number', and 'Merchant Zip/Postal Code'. Below the fields are 'OK' and 'Cancel' buttons.

You need the following information to complete the demographics dialog entries:

- The PSCS user under which the merchant parameter file was created on the PSCS server
- The merchant location street number (e.g. enter '123' for 123 Main St.)
- The merchant location 5 digit zip code or 6 character Canadian postal code

After entering this information, click 'OK'.

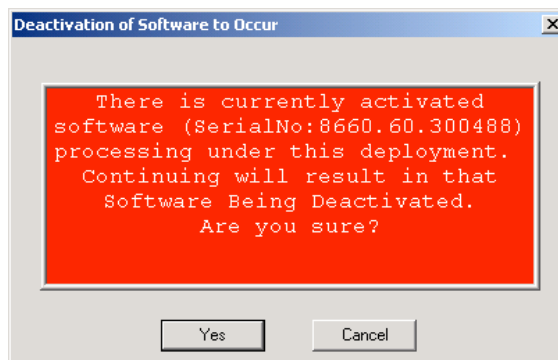
If NETePay is successful in retrieving the merchant parameters from Datacap's PSCS server, then you will see the following screen:



The 'Display Merchant Info' dialog box shows 'PSCS Deployment ID: TEST1234'. Below this is a text area labeled 'Merchant Information' containing the following text: 'EPTE', '123 South St.', 'Apt. 123', 'Beaumont, TX 12345', and 'US'. At the bottom are 'Yes, This is the Correct Merchant' and 'Cancel' buttons.

If the displayed information is not correct for the merchant site, click 'Cancel' and retry entry from the beginning of step 4. If the displayed information correctly identifies the merchant site, click 'Yes, This is the Correct Merchant'.

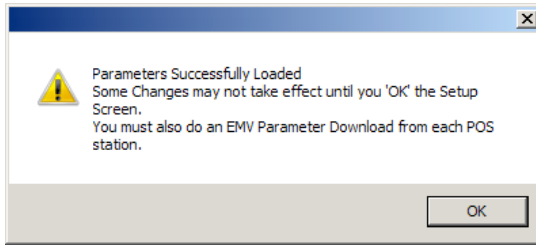
If NETePay detects that the selected merchant is already in use by another serial number, you will see the following dialog:



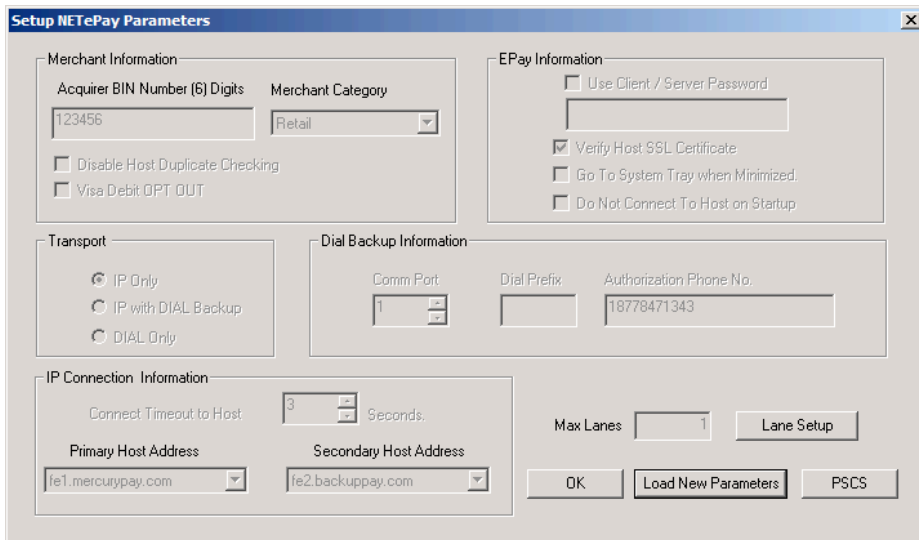
The 'Deactivation of Software to Occur' dialog box has a red background with white text that reads: 'There is currently activated software (SerialNo:8660.60.300488) processing under this deployment. Continuing will result in that Software Being Deactivated. Are you sure?'. At the bottom are 'Yes' and 'Cancel' buttons.

If you see this Deactivation Warning dialog, proceed to step 5.

If the parameters are successfully loaded, you will see the following dialog:



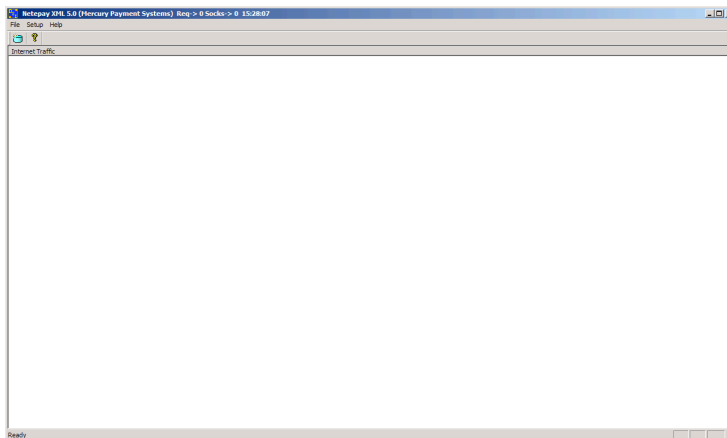
Click 'OK' and you will then see the setup screen as follows:



The setup screen now contains non-zero values in the text boxes throughout the screen indicating the values retrieved from Datacap's PSCS server. You should verify that the parameters are correct and then click 'OK' to complete the setup process.

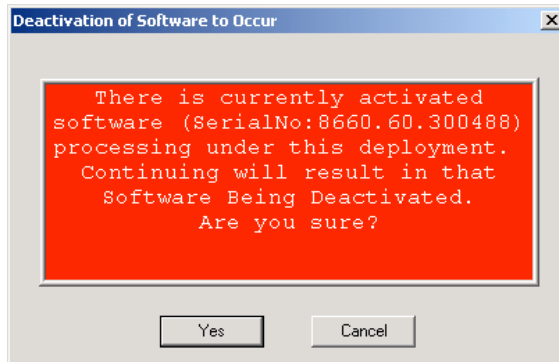
Lane Setup allows you to optionally change the description associated with each lane that was authorized in the PSCS parameter file. You cannot alter the number of lanes in NETePay; changes to the number of lanes must be done by editing the deployment file in PSCS.

You will then see the NETePay main status window indicating that NETePay is now programmed and ready to process transactions.



NETePay setup is complete.

5. If you receive the following Deactivation Warning dialog when entering a Deployment ID or Merchant Demographic Information that means another installation of NETePay is already using the merchant parameters associated with the Deployment ID or demographic information.



Verify that the Deployment ID or demographic information entered is correct; if not click 'Cancel' and retry the entry.

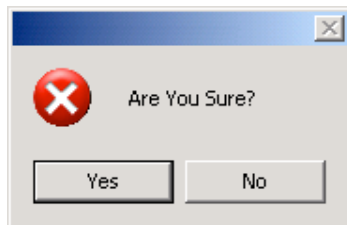
If the Deployment ID or merchant demographic information is correct and you want to force the parameters to load into NETePay, you should be aware that the NETePay with the serial number listed in the dialog box will be deactivated and will no longer be able to process transactions.

This dialog is typically encountered when the current NETePay is a replacement for a NETePay already activated for the same merchant who may have had a computer problem or hard disk failure that no longer allows them to use that earlier NETePay installation. This process will allow the new NETePay installation to use the existing merchant parameters associated with the entered Deployment ID without the need to create a new parameter file on Datacap's PSCS server.

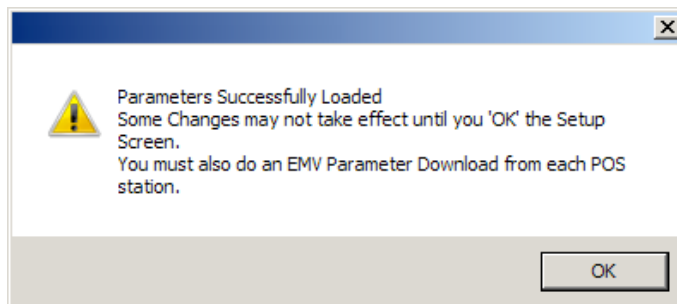
WARNING:

Do not select 'Yes' unless you are certain that the NETePay with the serial number listed in the dialog box should be deactivated.

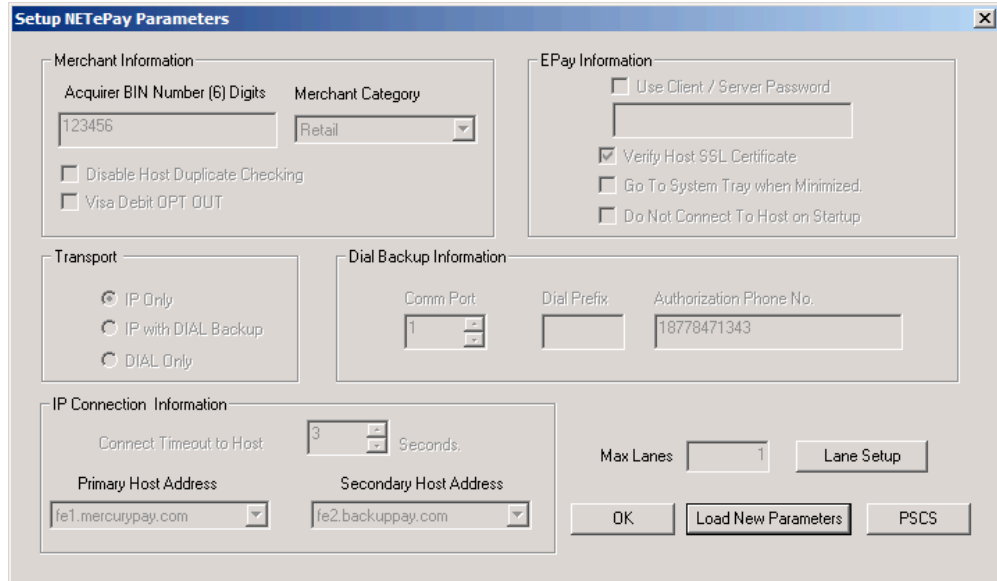
If you are certain that you want to deactivate the NETePay serial number listed in the Deactivation Warning dialog and use it with the new NETePay, then click 'OK'. You will see the following dialog which verifies your choice:



Click 'Yes' to if you are certain that you want to deactivate the NETePay serial number listed in the Deactivation Warning dialog and use it with the new NETePay. You will then see the following screen if the parameter download from Datacap's PSCS server is successful:



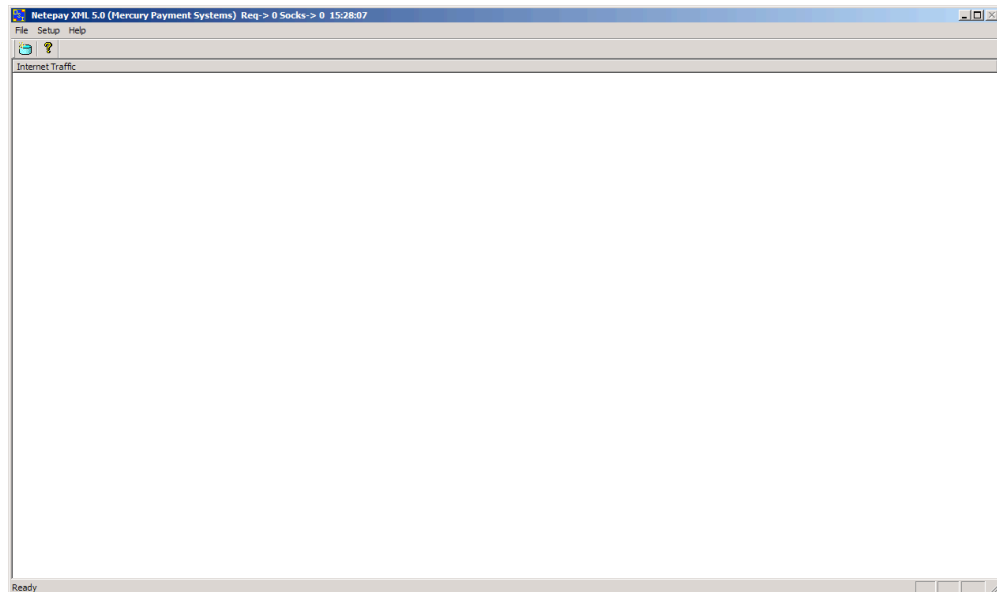
Click 'OK' and will then again see the setup screen as follows:



The setup screen now contains non-zero values in the text boxes throughout the screen indicating the values retrieved from Datacap's PSCS server. You should verify that the parameters are correct and then click 'OK' to complete the setup process.

Lane Setup allows you to optionally change the description associated with each lane that was authorized in the PSCS parameter file. You cannot alter the number of lanes in NETePay; changes to the number of lanes must be done by editing the deployment file in PSCS.

You will then see the NETePay main status window indicating that NETePay is now programmed and ready to process transactions.



NETePay setup is complete.

Testing

Important! - Before You Start

You should arrange with your bank and payment processor for testing *NETePay* and all other related components before going live. You should perform a sale and return transaction of \$1.00 for each card type you will be accepting using live credit and debit cards. You should then verify with your processing provider that all transactions were credited properly.

NETePay versions that process Canadian EMV card transactions use DSIEMVClientX which requires that a properly programmed and encrypted Canadian EMV PIN Pad must be attached to a serial port on every POS workstation that will use DSIEMVClientX. Once an EMV capable NETePay is properly installed and activated, it is necessary to perform an EMV parameter download for each EMV PIN pad. Consult your POS provider's documentation for instructions on how to perform an EMV parameter load. Since PIN pads can be inadvertently injected or programmed incorrectly, it is especially important to perform test transactions with a chip card and verify that it's processed for the correct merchant before accepting live customer payments.

It is the sole responsibility of the merchant account holder to verify that the merchant information entered into NETePay and the PIN pads is complete and correct.

You should only process actual customer payments after you have verified with your merchant account provider that all test transactions have been successfully processed.

Operational Considerations

Important!

NETePay relies on numerous services provided by Windows and other Microsoft software such as MSDE or SQLExpress 2005. **Proper computer operation is imperative to ensure reliable NETePay operation and prevent possible loss and/or corruption of transaction data.**

The following operational guidelines *must* be observed to ensure reliable NETePay operation:

- *Always* quit NETePay from the File|Exit pull down menu before restarting or shutting down Windows.
- *Always* quit NETePay and then shut down Windows before turning off the computer power. Never turn off the computer power without first quitting NETePay and shutting down Windows.
- *Always* quit NETePay and shut down Windows before pressing the reset button on the computer.
- If the computer is subject to unplanned power losses, the use of an UPS (Uninterruptible Power Supply) is *highly recommended*.
- If you operate a backup copy of NETePay, you *must* procure unique terminal and/or merchant account information for each copy of NETePay from your processing provider. Operation of multiple copies of NETePay with identical merchant setup information may cause transactions to be lost or duplicated at your processing provider.

USING THE NETEPAY DATABASE MANAGER

Introduction

This chapter explains how to use the *NETePay Database Manager* program to perform maintenance functions on *NETePay*'s MSDE/SQL Express database. The *NETePay Database Manager* program is installed as part of the *NETePay* installation. The *NETePay Database Manager* program is available in the Software from Datacap program group available under the Programs menu under the Windows Start button.

Maintenance Functions

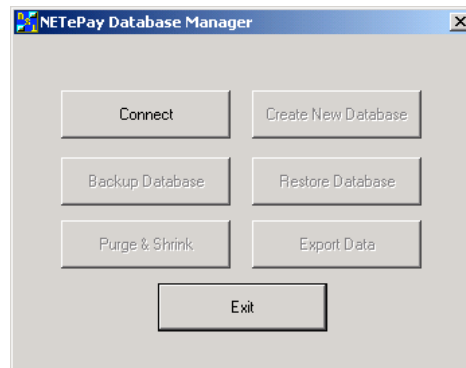
The *NETePay Database Manager* can perform the following functions:

- **Connect** – Before any of the maintenance functions can be performed, the *NETePay Database Manager* must be connected to the database.
- **Backup Database** – This function will backup the current database to a file that is automatically named with the current date (or a user defined name). These backup files can subsequently be Restored if there's a database problem. *It is strongly recommended that you regularly backup the database.*
- **Purge & Shrink** – This function allows you to control the size of the database by removing older transaction data based on its age. This function will prevent the database from growing too large and using disk storage inefficiently. *It is strongly recommended that you keep only the oldest transactions required by your processing provider and delete any older to save disk space.*
- **Create New Database** – This function allows you to create a new, empty database with no transactions. Normally, this type of function would be used only when instructed by a technical support person.
- **Restore Database** - This function allows you to restore a previously saved backup database file.
- **Export Database** – This function allows you to export a copy of the data to a CSV (comma separated value) format file. Note that only open records (i.e. transactions which have not been settled) are included in the export file.

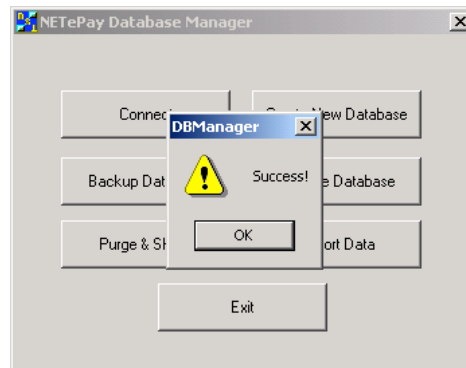
Using the NETePay Database Manager

To start, launch the program by selecting **NETePay Database Manager** from the **Software from Datacap** program group under **Start|Programs**. The following main screen will be presented:

Connecting to the Database



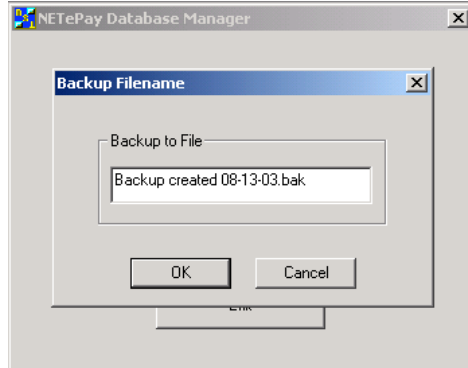
1. Before any of the maintenance functions can be performed, the NETePay Database Manager must be connected to the database. Click the **Connect** button.
2. If the NETePay database is located and successfully opened, after a few moments, you will see the following:



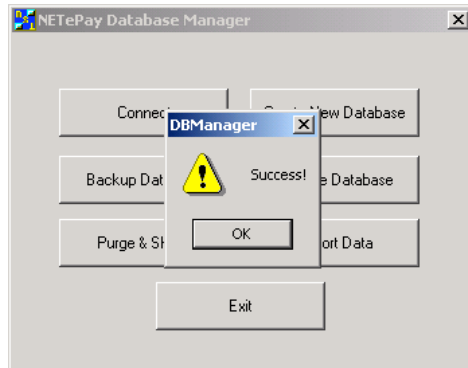
If the Database Manager cannot establish a connection to the database, make sure that MSDE was previously installed and note the error codes.

Backing Up Your Database

1. To backup the current database, click the **Backup Database** button. The following dialog will be displayed:



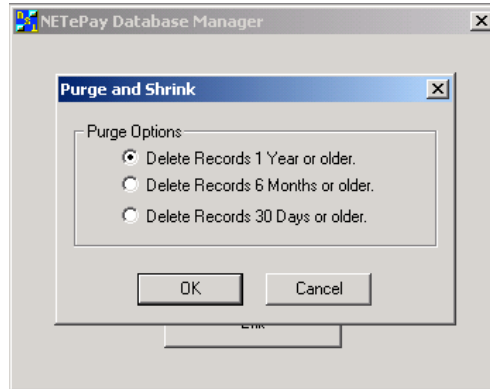
2. A file name with today's date will automatically be generated. If that is acceptable, click OK. If you want a different file name to be used for the backup file, you may type it in the text box and click OK.
3. If the backup operation is successful, after a few moments, you will see the following:



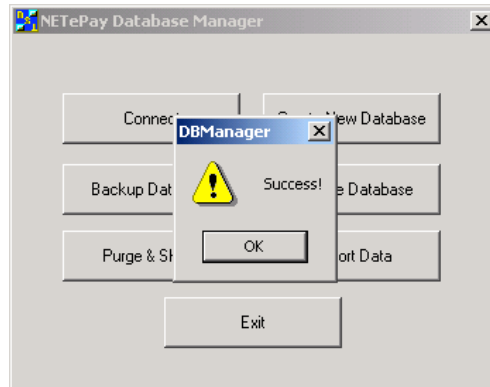
Note: This function will backup the current database with the most recent transactions. Backup files can subsequently be Restored if there's a database problem. *It is strongly recommended that you regularly backup the database file.*

Purging and Shrinking Your Database

1. To remove old transaction data from the database and save disk storage space, click the **Purge & Shrink** button. The following dialog will be displayed:



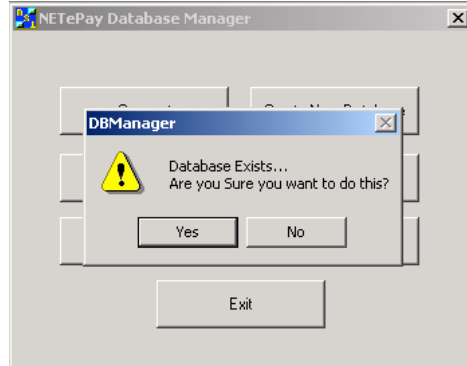
2. Select the age of transaction records that you want to remove from the database and click OK.
3. If the **Purge and Shrink** operation is successful, after a few moments, you will see the following:



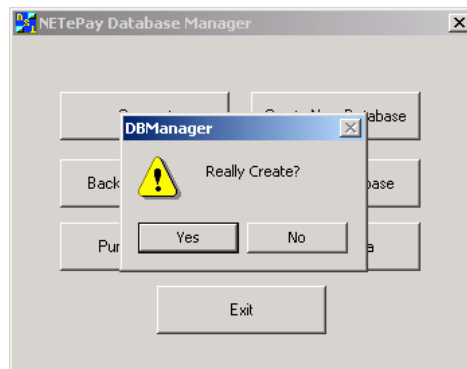
Note: This function will prevent the database from growing too large and using disk storage inefficiently. *It is strongly recommended that you keep only the oldest transactions required by you processing provider and delete any older to save disk space.*

Creating a New Database

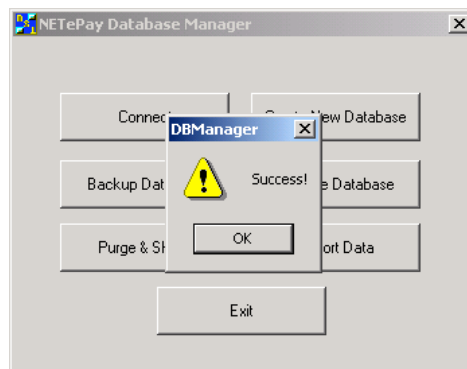
1. To create a new empty database, click the **Create Database** button. The following dialog will be displayed:



2. Since the **Create Database** operation replaces the current database with a new one, the dialog box will remind you that there's a current database. Click YES to proceed with create.
3. Since the current database will be lost, another dialog confirms the operation. Click YES to continue with the create.



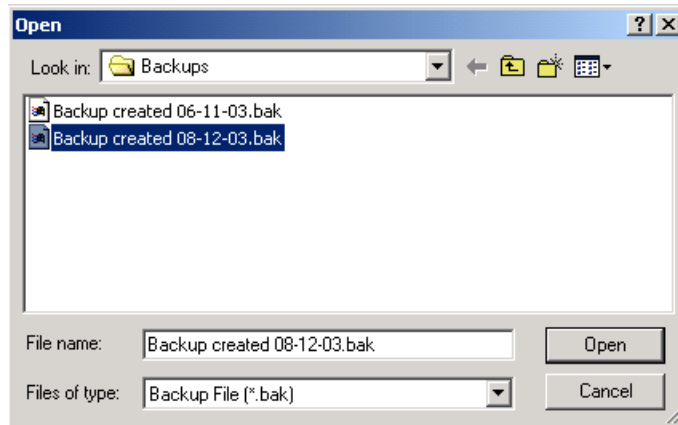
4. If the **Create Database** operation is successful, after a few moments, you will see the following:



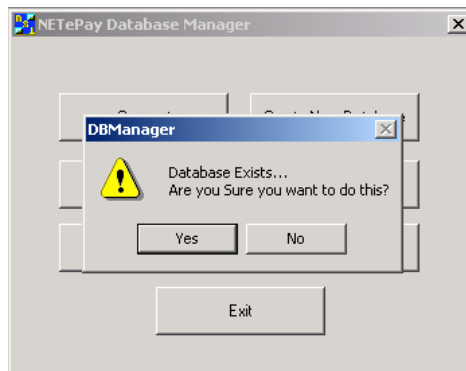
Note: This function is normally used by support personnel. **Caution!** *Since this operation destroys any current data, make sure you backup any current database before using!*

Restoring Your Database

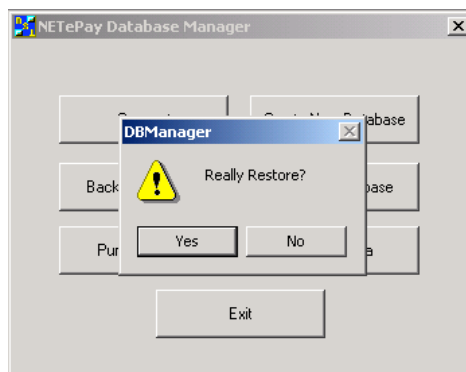
1. To restore and previously backed up database, click the **Restore Database** button. A file dialog will be presented and you should select the file that you want to restore to the current database:



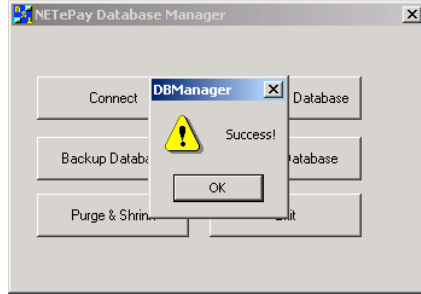
2. Since the restore operation replaces the current database with an older one, the dialog box will remind you that there's a current database. Click YES to proceed with restore.



3. Since the current database will be lost, another dialog confirms the operation. Click YES to continue with the restore.



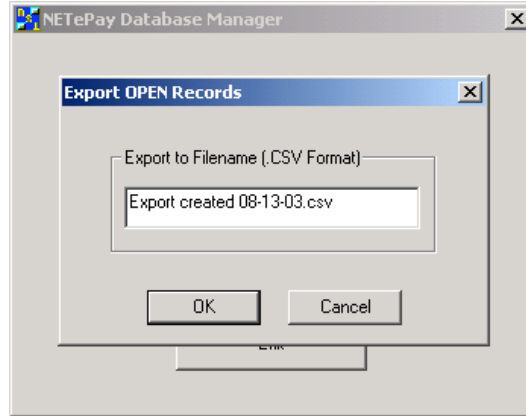
4. If the **Restore Database** operation is successful, after a few moments, you will see the following:



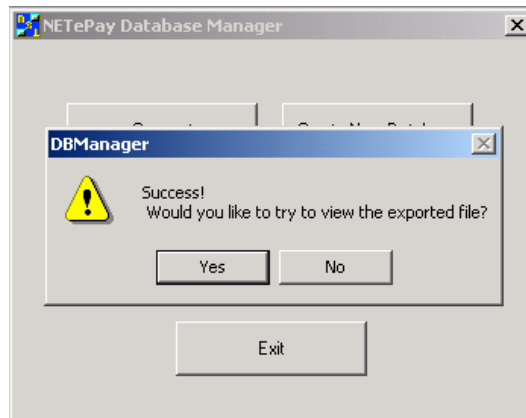
Note: This function will prevent the database from growing too large and using disk storage inefficiently. *It is strongly recommended that you keep only the oldest transactions required by you processing provider and delete any older to save disk space.*

Exporting Your Database

1. To backup the current database, click the **Backup Database** button. The following dialog will be displayed:



2. An export file name with today's date and a ".csv" extension will automatically be generated. If that is acceptable, click OK. If you want a different file name to be used for the export file, you may type it in the text box and click OK.
3. If the export operation is successful, after a few moments, you will see the following:



If you select YES, then the exported file will open in an associated application (such as Microsoft Excel).

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