Pervasive PSQL Product Activation

Introduction

Licensing for Pervasive PSQL is enforced by the use of keys. Keys are associated with individual computers and can be activated and deactivated. Product activation is a key validation process verifying that the copy of software is legitimate, correctly licensed and on the appropriate hardware and software platform. Beginning with Pervasive PSQL v10, Pervasive is employing product activation technology to ensure the validity of copies of Pervasive PSQL. Our goal is to protect against casual copying of our software products and to extend that protection as simply as possible to our ISV, OEM, and Distributor partners. Pervasive has field tested the product activation process for electronic downloads of PSQL trials and e-commerce purchases for several months and with the release of PSQL v10 SP3, products shipped through our Distributor and ISV partners (shrink wrapped software) will use the product activation process.

This paper will help developers and end users better understand the Pervasive product activation process and the various ways to activate Pervasive PSQL.

Product Activation Basics

Product activation involves three main components: 1) the software, 2) a key, and 3) a process that validates and activates the key for the product. The software is typically delivered with a key and that key is applied during installation and validated on the local machine or, more recently, by a remote process requiring an Internet connection. These are the basics of Pervasive PSQL product activation. The biggest difference between PSQL v10 and earlier versions is that product activation now uses an Internet connection as part of the validation process. The Pervasive PSQL Product Activation process can be broken into two main steps: 1) Key Generation and Delivery and 2) Validation and Activation.

Key Generation and Delivery

1) When a copy of PSQL is ordered from the Pervasive website, downloaded as a trial, or purchased from a Pervasive partner a key is generated and delivered with the product or via email.
2) A copy of that key is stored in a Pervasive server to be used as part of the validation and activation process.

Key Generation and Delivery
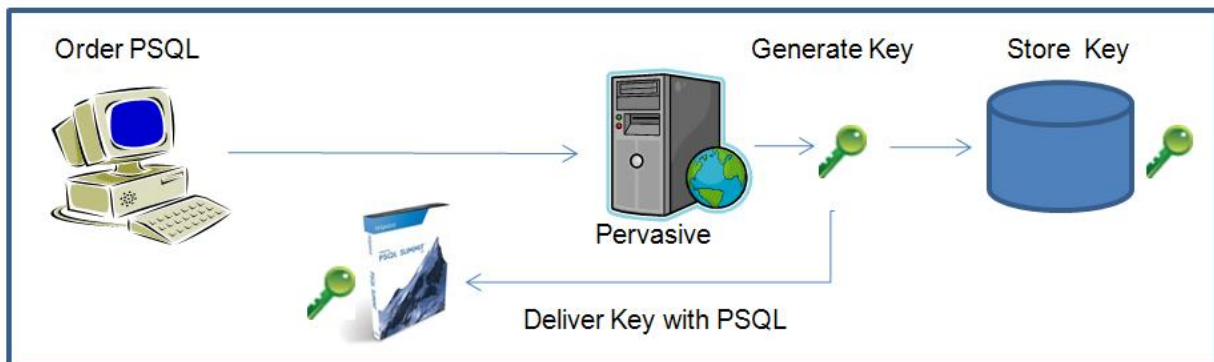
Validation and Activation

1) The activation process is started after you install PSQL by inputting the key using the PSQL License Administrator. The activation process can be started during the installation process of PSQL, or after you install PSQL by inputting the key using the PSQL License Administrator.
2) The installation process, or the License Administrator, connects to the Internet to send the key, along with hardware configuration information specific to the machine (a machine ID), to the Pervasive server.
3) The server verifies that the key is registered in its database and confirms that the key is not already associated with another machine.
4) Once the key has been validated, the server creates a unique installation ID pairing between the key and the machine ID and activates the key for PSQL.

Validation and Activation
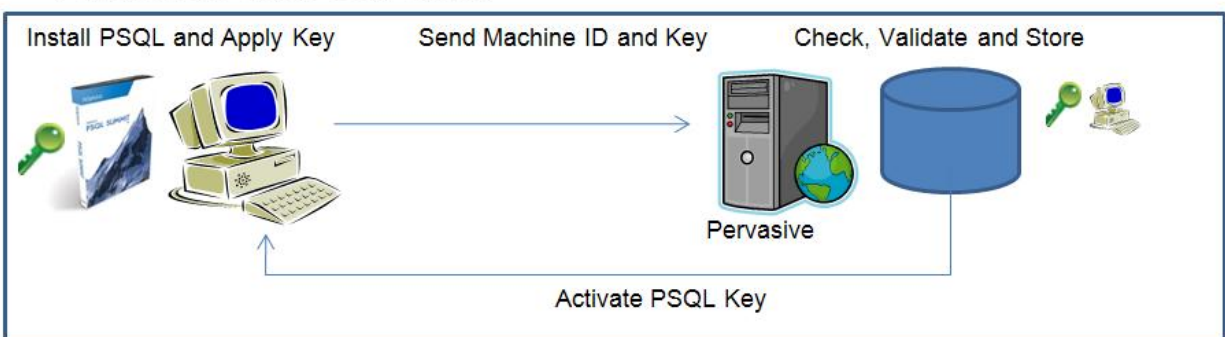
Product Deactivation

A big part of the control delivered by product activation is the linking of a copy of software to a specific machine. But, because machines fail, get replaced, or get upgraded it is important to have a way to move a copy of software from one machine to another. This is enabled by Product Deactivation, which is simply deleting the machine ID associated with a key. The key remains inactive until it is applied again

on the same machine or on another machine. Just like product activation, product deactivation requires an Internet connection.

Ways to Activate a Pervasive PSQL Key

Currently, there are three ways to activate a Pervasive PSQL Key:
- Online—the machine with PSQL installed is connected to the Internet.
- Remote—the machine with PSQL installed is not connected to the Internet, but is networked to another machine with Internet access.
- Offline—the machine with PSQL installed is isolated. It is not connected to a network or to the Internet.
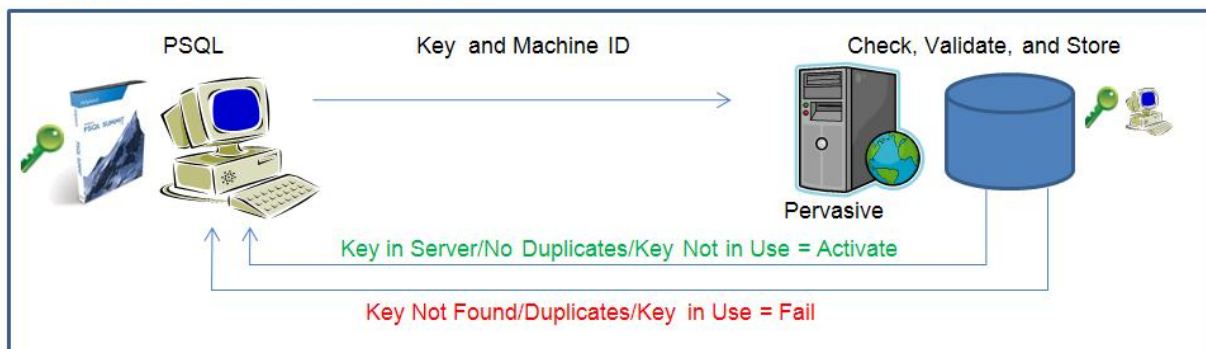
Online Activation

Online activation was described above when covering the basics of Product Activation. It is worth mentioning again because it is the most common method by which the Pervasive PQSL key is activated. It is simple, quick and almost unchanged from previous versions of PSQL:

1) Install PSQL, input the key, click Activate

or

2) Install PSQL, open the License Administrator, input the key, click Activate

Online Activation

1. Install PSQL and Apply Key   2. Send Machine ID and Key   3. Check, Validate and Store Key with Machine ID
4 . Activate PSQL Key or send error message

After you input the key and click Activate, the process is automatic and takes only a few seconds. Online deactivation is accomplished through the License Administrator by selecting a key and clicking Deactivate.
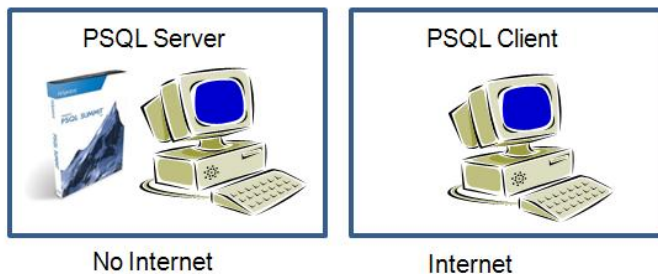
Remote Activation

Remote activation is used if the machine running the database engine is not connected to the Internet, but it is connected to another machine that is connected to the Internet.

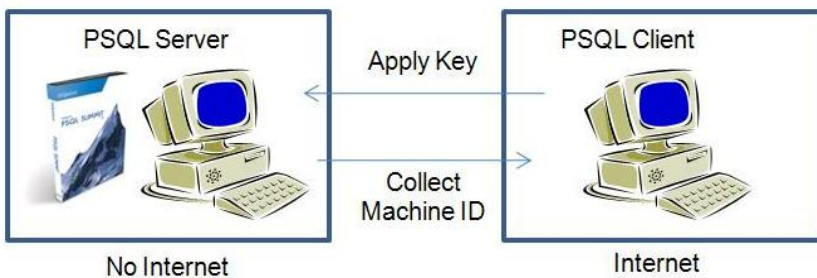The following is a typical scenario for using remote activation:

1) Install a PSQL engine (Server or Workgroup) on the non-Internet machine.
2) Install a PSQL client on an Internet machine.
3) Use the PSQL License Administrator on the Internet machine to access the PSQL server on the non-Internet machine.
4) Apply the key and activate the PSQL key.

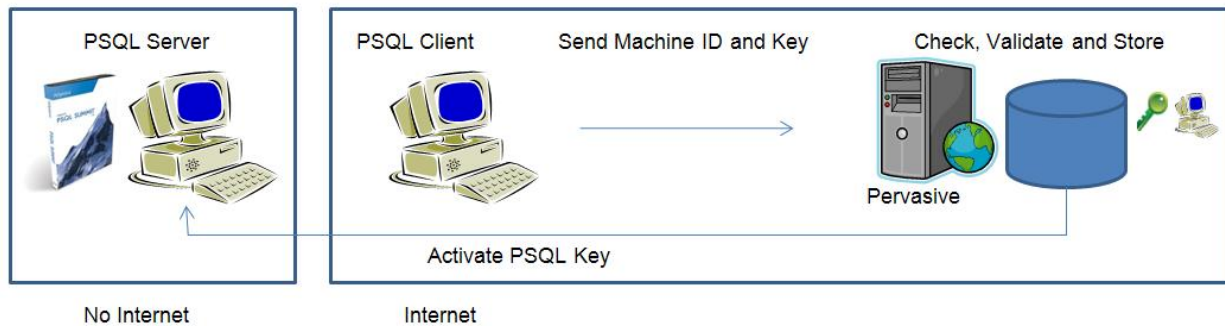## Remote Activation

1. Install PSQL Server and PSQL Client

PSQL Server — No Internet

PSQL Client — Internet

2. Use License Administrator on Client to apply key to PSQL Server and collect machine ID

PSQL Server — No Internet

Apply Key

Collect Machine ID

PSQL Client — Internet

Remote deactivation is accomplished using the License Administrator on the PSQL Client machine. Refer to *Pervasive PSQL User's Guide* for details about using the licensing utilities for remote activation or deactivation of a key.

Offline Activation

Offline activation involves activating a key on a machine that is not connected to a network. This necessitates moving files required for activation between the machine on which the PSQL product is installed and another machine. The other machine requires a connection to the Internet.   The example below uses a USB flash drive for transferring files but any portable storage device will do as long as the device is read/write capable.

1) Install a PSQL engine (Server or Workgroup) on the non-networked machine.
2) Using the command line License Administrator, generate an Authorization Data file (run the clilcadm utility to collect machine ID information for the Non-Networked Machine and combine it with the key data in an encrypted file to carry to the Internet Machine). Save the file to a USB drive.
3) Copy the Authorization Data file from the USB drive to the Internet Machine
4) Send the Authorization Data to the Pervasive server and retrieve the Activation Data (run licgetauth.exe to send the key and machine ID information to the server and return the activation data).
5) The output of this process is a .pky file including the Activation Data needed to activate Pervasive PSQL on Non-Networked Machine. Save the .pky file to a USB drive.
6) Bring the USB drive to Non-Networked Machine and apply the Activation Data file (run the clilcadm utility).
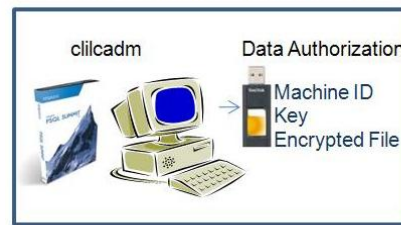
Offline deactivation cannot be accomplished through the Licenses Administrator and requires contacting Pervasive Support. Offline activation, and steps for using the utilities, is fully explained in the *Pervasive PSQL User's Guide*.
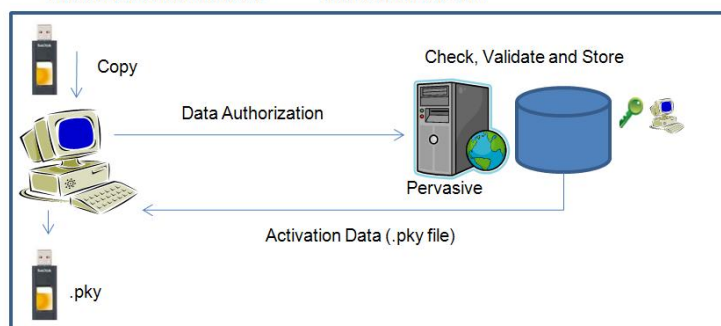
Offline Activation

Hardware Changes, Virtual Machines, Disaster Recovery, and Reusing Keys

General Rule: Deactivate First

When uninstalling Pervasive PSQL, upgrading a server running PSQL, cloning a virtual machine or moving Pervasive PSQL to another system – **always deactivate the PSQL key first.** This way you can be sure that the key used to activate your copy of PSQL will not already be associated with a machine ID and can be used to reactivate PSQL whenever and wherever needed.

Hardware Changes

Always deactivate the Pervasive PSQL key before making changes to hardware. Here is why. When the PSQL engine starts, it checks to confirm that the machine ID related to that installation of PSQL is unchanged. Changes to three or more of the attributes that make up the machine ID will disable the license. For virtual machines, any changes in the machine ID attributes (except memory) will disable the PSQL license. In both cases, the License Administrator utility shows the status of those licenses as Disabled and the user count for that instance of PSQL being dropped to zero.

Before Machine ID Change

After Machine ID Change

Note: If a permanent license is deactivated, all of the user count increases (UCI's) associated with that license are deactivated also.

Activation and Deactivation for Virtual Machines

The activation process collects unique machine ID information from each instance of a virtual machine. Therefore, each image (including clones and copies) requires its own key. Activation and deactivation for virtual machines work the same way as online activation.

Note that, except for memory allocation changes, changing the configuration of a virtual machine alters the machine ID just as it would for a physical machine. When changing a configuration, copying or moving a virtual machine, deactivate the Pervasive PSQL key first. This is the best way to ensure reactivation on the new virtual machine.

Disaster Recovery

If the machine running Pervasive PSQL fails, it does not automatically connect to the remote Pervasive server and deactivate the PSQL key. The key associated with that machine ID, as far as the Pervasive server is aware, is still active. This means the key cannot be used for any other system. The only way to get the key into a state where it can be reactivated is to contact Pervasive Support and have the key reset. Support hours are Monday through Friday 9:00 AM to 5:00 PM CST:

- In the U.S. at 800.287.4383 (select option 1, then option 2)
- In Europe at 00800.1212.3434

If the server failure occurs outside of Pervasive's normal hours and a working system is needed immediately, download a temporary version of PSQL v10 from the Pervasive website at http://www.pervasivedb.com/Database/Trials/Pages/Default.aspx. The download process will deliver a 30 day temporary key (20-user for Server and 5-user for Workgroup) that can be used to enable a standby system until Pervasive can reset the key or the server is repaired.

Summary

Product activation helps Pervasive and its partners protect their software and ensure that customers get valid copies of software. Of the three ways to activate a PSQL key, the great majority of product activation will be simple online activation. Most end users will see very little difference in licensing between PSQL v10 and previous versions.

Additional Resources

Read the License Administration documentation in the *Pervasive User Guide*:

http://www.pervasivedb.com/Database/support/library/Pages/databaselibrary.aspx

Status Codes pertaining to key activation:

License Administrator – 7063 – 7127
Activation – 7021 – 7366

Read the PSQL License Activation FAQ:
http://ww2.pervasive.com/Database/support/Pages/ActivationFAQ.aspx