Personal Information Management System

# Overview

The explosion of e-Commerce, online applications, computer systems, networks, and electronic gadgets has dramatically increased the amount of personal information that an individual has to keep track of. A typically adult has to keep track of dozens of accounts codes, passwords, or identifiers, such as door keypad codes, bank account numbers, passwords, medical record numbers, insurance policy numbers, etc. The information types and structures can vary substantially. Even in the limited sub-area of online accounts, there can be considerable variation in kinds of information that one has to keep track of. For one system, a person may need to remember just a username and password. For another system, one might have to keep track of username, the email address that was used during registration, a password, and two or three challenge questions and their responses.

In short, keeping track of an ever increasing amount of personal information has become into a serious challenge. Even though there are a number of commercial and open-source password-management available, few meet the growing needs of the modern high tech user.

Below are a few key features that a *Personal Information Management System (PIMS)* should provide. A successful product could offer many addition features. However, one of the most important success factors is that the product must be easy and fast to use, especially for the most common activities such as looking up account information.

* Help users manage access information for all types of systems -- not just on-line accounts. This information may include (but is not limited to) an account title, vender or service provider name, URL, username, account number, passwords, PIN, lock combinations, challenge questions and responses, comments, registration date, last modified data, expiration date, and cancelation date. Users should be able to define new kinds of information on the fly.
* Help users manage confidential notes (e.g. personal facts like SSN, birth dates, birth city, Medicaid number, credit card numbers, and insurance policy numbers) that are independent of any particular account.
* Help users organize all of their personal information.
* Help users generate possible passwords that meet selected constraints but are still relatively easy to remember. The system should include some common rules (e.g. “include upper and lower case letter”, “must include a special character”, and “cannot include a single quote”), but allow users to define new kinds of constraints.
* Allow users to share selected pieces of information with others.
* Keep all information in an encrypted store that can only be access by an authenticated and authorized user.
* Encrypt any electronic communications with other systems

PIMS could be built as a web-based application, desktop application, or mobile app. Clearly, how the system analysis unfolds from here and what functional requirements will eventual contain depend on the selected platform.