PiSafe

PiSafe is the system for managing and synchronizing of user's personal data with the support of various devices and people. The key point of the system is multi-layered data security - from data storage to data transmission. For sufficient data protection, there are 3 certificates, 2 user passwords, 2 systems employed.

The mechanism of information interchange is based on email messages that feature the following advantages:

- Users trust email and understand what it is.
- There is no necessity in expensive service on the server part - an e-mail server is enough.
- The Most important advantage - the user can take any message in the system and check for security in an email client (all messages are in s/mime format).

The modular structure of applications and core subsystems for exchanging messages allow uniting various applications' functionality in one solution. Now such functions as synchronization and sharing: passwords, files, contacts, images and music - are accessible from a single application.

The system consists of the following parts:

Pisafe Desktop

A Desktop version of system, alongside with the systems of synchronization/sharing, contains subsidiary tools:

- Password Manager plug-ins for IE and FireFox.
- Windows Explorer plug-in for File Sharing.

The kernel of the system is implemented on PHP/Apache/SQLite, the interface is made on Web 2.0.

Pisafe Mobile

The mobile client for PiSafe Passwords provides passwords synchronization and sharing. IMAP and POP3 post protocols support is implemented also, as well as the s/mime format.
Technologies used:

1. Cryptography (BouncyCastle). Generation of RSA keys and X509 certificates, encryption.
2. XML (kXML). Persistent data storage in XML format.

Solutions:
1. A framework for viewers, which are model-based content adapters for J2ME ui controls.
   Each viewer has four parts:
      input - the object that serves as the viewer's model
      displayable - the UI control through which the viewer's model is displayed
      content provider - mediates between the model and viewer
      label provider - maps model objects to displayable labels containing text and/or an image
2. Multithreading. All lengthy operations isolated in own threads.
3. Activity progress monitoring to signal progress of lengthy operations to interested classes or to the user.
4. Hierarchical file system in record stores - Implemented as a subsystem providing for data storage in a record store as a hierarchy of folders and files.

Technologies: J2ME.

Pisafe Web

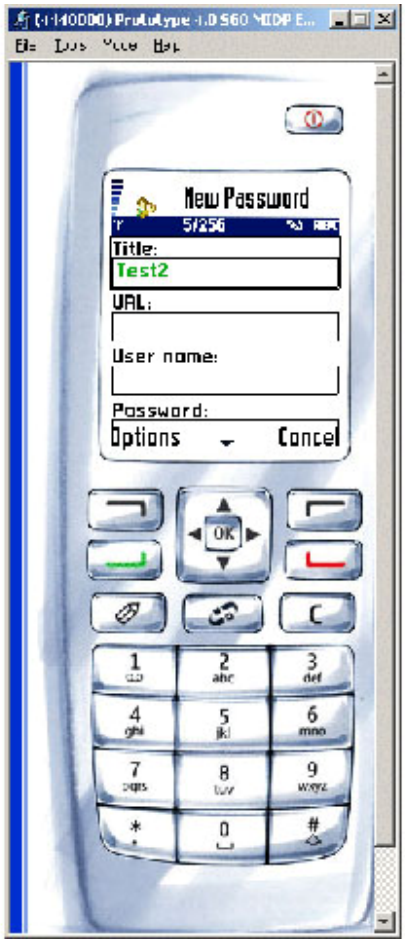
The system replicates PiSafe desktop in the part of web functionality (the key advantage in implementing desktop solutions on web technologies).

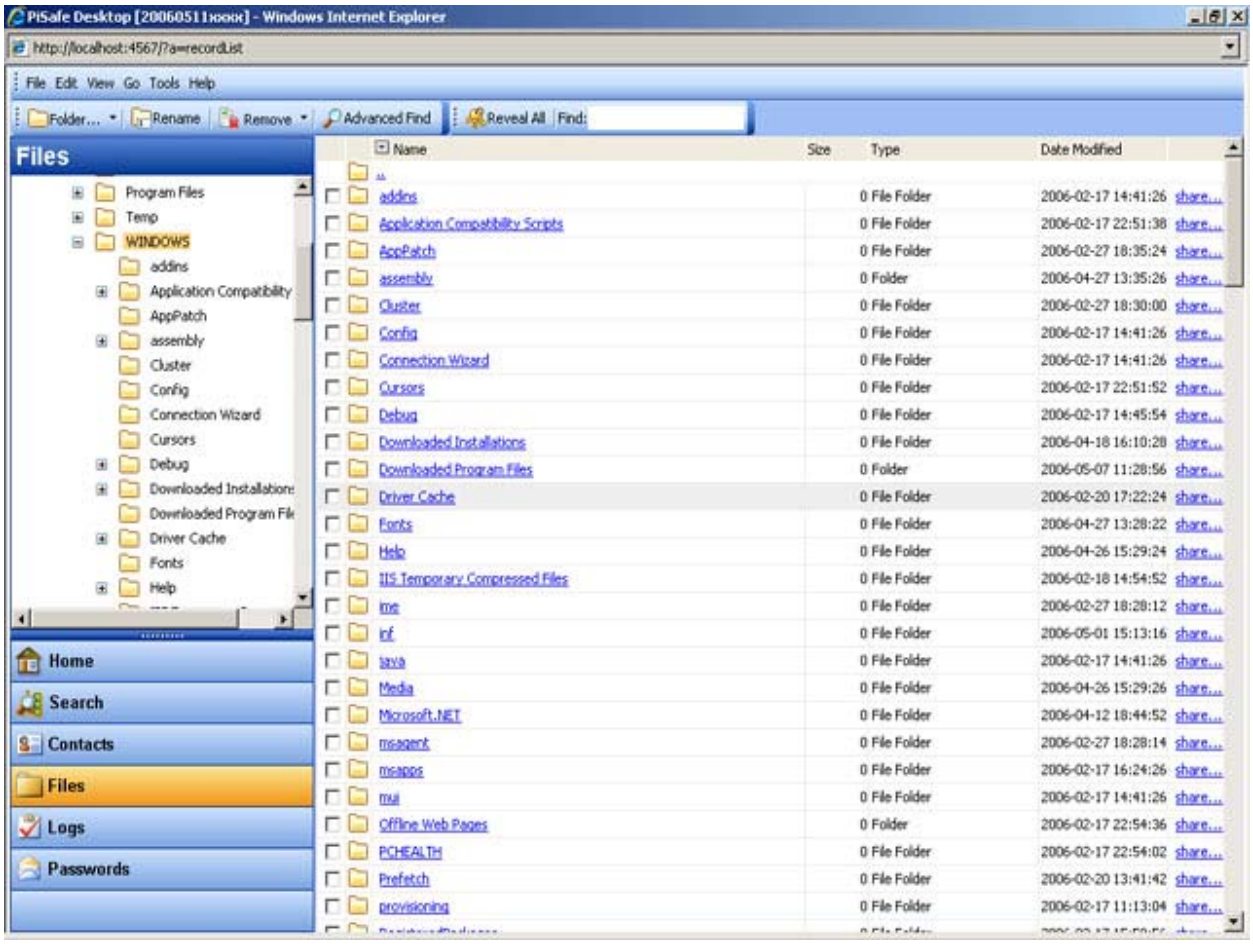
Customer: **HK29**

Year: 2005-2006

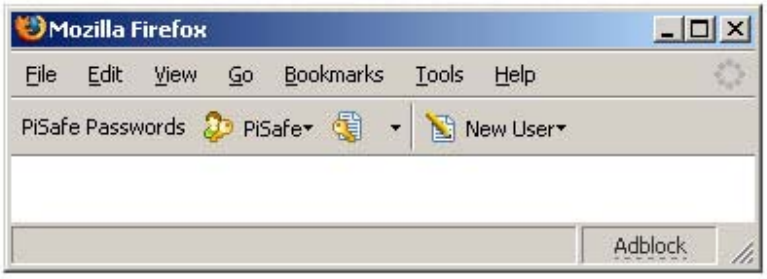
URL: www.pisafe.com

Screenshots

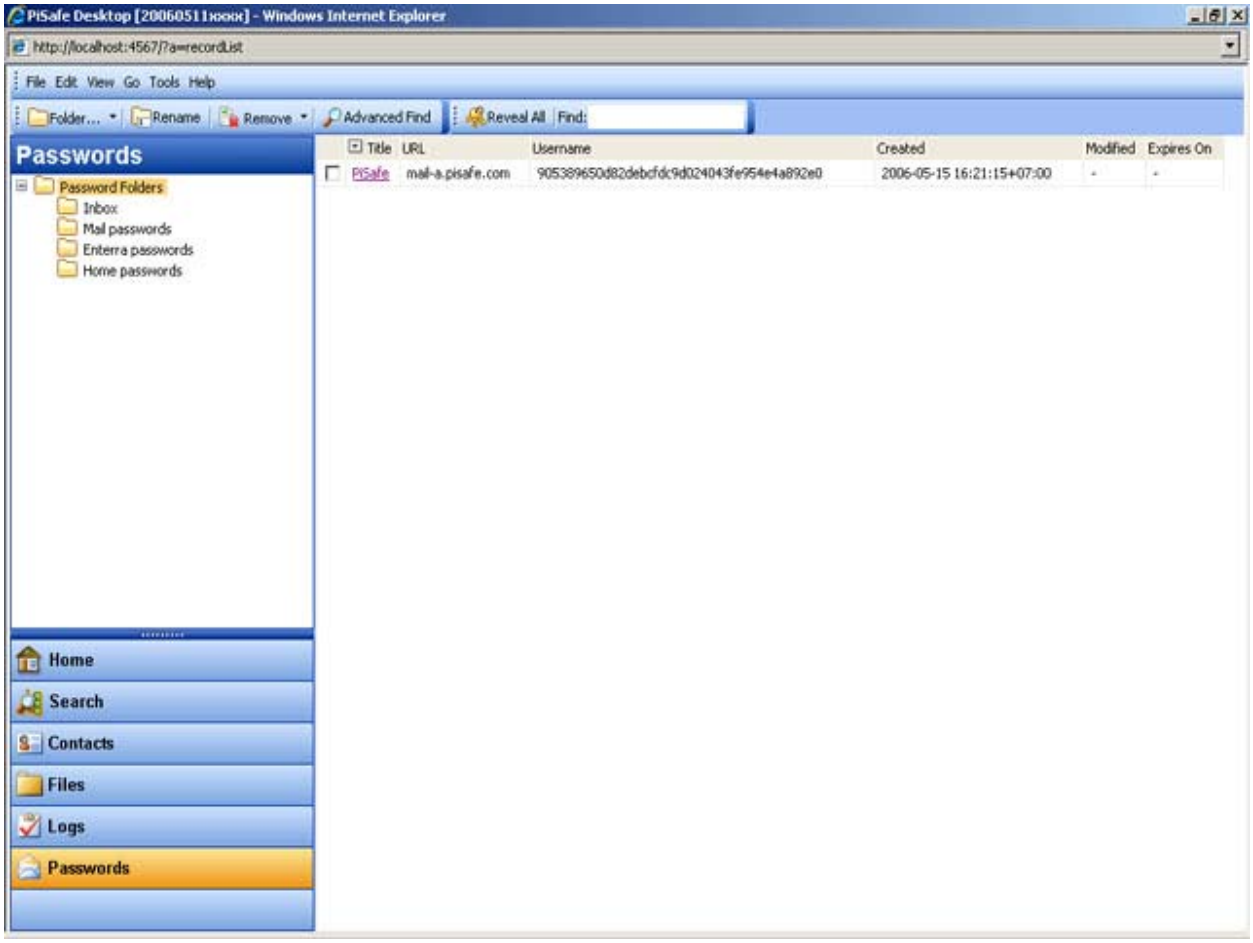




Filesharing



FireFox Plugin


PiSafe Desktop [20060511xxxx] - Windows Internet Explorer
http://localhost:4567/?a=recordList
File Edit View Go Tools Help
Folder... Rename Remove Advanced Find Reveal All Find:
Passwords
Password Folders
Inbox
Mail passwords
Enterra passwords
Home passwords
Title URL Username Created Modified Expires On
PiSafe mail-a.pisafe.com 90538965Od82debcfdc9d024043fe954e4a892e0 2006-05-15 16:21:15+07:00
Home
Search
Contacts
Files
Logs
Passwords

Passwords