

National Pet Register

Case Study

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Collect and maintain pet and owner registration details in a nationally integrated system

Project Summary:

The National Pet Register manages a registry of animals and their owners in Australia. The system manages the registration and allocation of tags or microchips for animals which are registered on the system. The system also manages the 'Change of Ownership of Pets' process from one owner to another.

The National Pet Register system helps in identifying the owners of lost animals which have either a registration tag or microchip.

There are over 800,000 registered users in the system with over 900,000 listed pets.

Client:

National Pet Register owned and operated by The Lost Dogs Home
<http://www.dogshome.com/content/overview-lost-dogs-home>

Client Business Background:

The National Pet Register is Australia's largest not-for profit pet identification and recovery service owned and operated by The Lost Dogs' Home. The National Pet Register is an accredited pet register holding an Australian Veterinary Accreditation.

The National Pet Register's aim is to reduce the number of lost and stray animals by issuing individually numbered ID tags and recording microchip numbers.

Project Challenge:

Some of the challenges of implementing the National Pet Register were to:

1. Deal with large datasets.
2. Data had to be converted from MS SQL to MySQL format before being able to use it.
3. A lot of data discrepancies needed attention before being imported into the National Pet Register database.
4. A new operator interface needed to be developed.
5. Set up of an automatic fail-over system.
6. Implementing an external communication to a "Fax Server" application which helps in linking the faxes back to NPR.



Actions:

Development of a web application with the following functionality:

- Public access for registrations
- Tag request management
- Tag or microchip allocation management
- Link to tag creation process
- Link to tag dispatch process
- Access Privilege Management
- Full search function (tag, user or company details)
- Link to 'Attache' software

Outcomes:

When a user registers through the public interface, they have to record their contact details before being able to add "Pets" to their profile. Each pet registered through the public interface gets automatically allocated with an identification tag "request". These requests for "Pet Tags" get queued up in the Administration area. Optionally the user has the ability to request for new tags for their existing Pets.

The administrator then has the ability to generate "Tags" (large/small) based on a sequence number. Once the tag number's are generated, the tagged pet record is automatically sent to a Letter printing queue.

The administrator can then print the tag identification letters which are in the queue and they then get sent to the Pet's owner in the mail along with the Tag.

In the administration area users are able to search Animal Records by tag or microchip number or by a user's name, email or phone number. These details can be updated or edited and new tags can be requested. Admin users can also add documents or notes to the details. The search function also extends to include searching by company name or billing codes.

The Registrations area allows admin users to check the tag allocation queue, view details of all existing allocated tags, view the letter printing queue or the change of ownership queue.

When an Animal record has a microchip recorded against its profile, additional microchip implanting details need to be recorded. These details are:

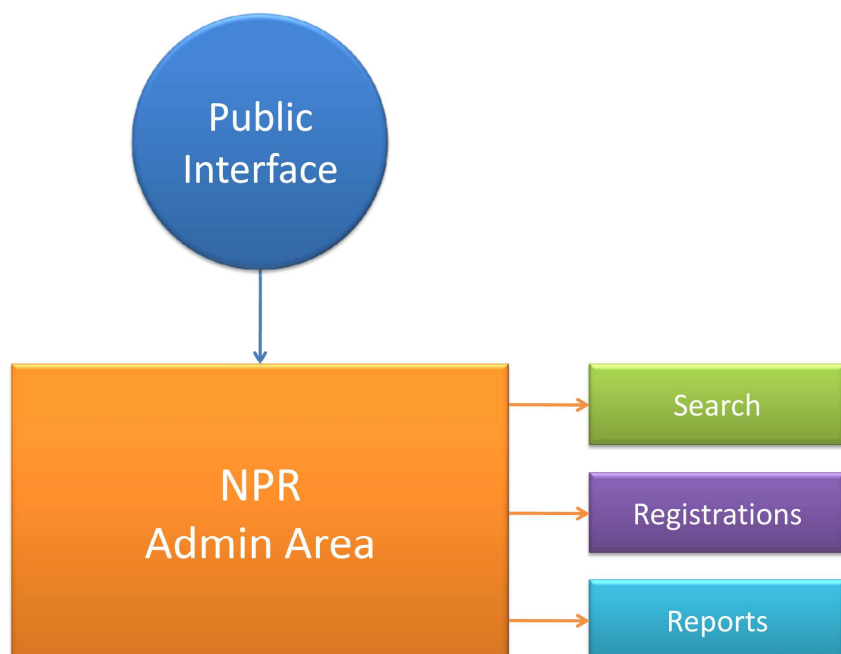
- Implanter Name
- Implanted Date
- Implanter Notes
- Implanter Billing Company

Even though an Implanter works for a Company, they can contract their work to multiple companies meaning the billing company could vary for each implanting job. Therefore, whenever an implanter makes an implantation, the billing company is recorded against the microchip record.

This data is turned into a report (CSV file) by the end of each month and imported into a software package called "Attache" allowing Lost Dogs Home to pay those companies for the implanting work.

The system has allowed Lost Dogs Home to:

- View the data in a simple and organised manner.
- Set permissions for accessing modifying data.
- Use a faster system than was previously in place.
- Operate in real time with no down-time for registration data to be recorded and processed.
- Save on data entry time.
- Prevent data corruption more successfully than the previous system allowed.



Technology Used:

The National Pet Register system was created using Apache HTTP Server with PHP5 module, Adobe Flex and MySQL.

Apache HTTP Server:

The Apache HTTP Server Project is an effort to develop and maintain an open-source HTTP server for modern operating systems including UNIX and Windows NT. The goal of this project is to provide a secure, efficient and extensible server that provides HTTP services in sync with the current HTTP standards.

Adobe Flex:

Adobe Flex is a software development kit released by Adobe Systems for the development and deployment of cross-platform rich Internet applications based on the Adobe Flash platform. Rich Internet applications (RIAs) are web applications that have some of the characteristics of desktop applications.

Flex is a highly productive, free open-source framework for building and maintaining expressive web applications that deploy consistently on all major browsers, desktops, and operating systems.

The advantage of Flex is that it doesn't rely on page reloads, can have animations, interactive graphs and handles large datasets.

MySQL:

MySQL is a relational database management system (RDBMS). The program runs as a server providing multi-user access to a number of databases.

Extension and Application:

The National Pet Register system has application in:

- Registry of thoroughbred horses and their owners
- Registry of Pedigree animals

Screenshots:

