Case Study

Seedling

Client Profile:

RuralShores is one of the first Indian rural business process outsourcing (BPO) company. It is a BPO based in rural India with delivery centers across various Indian states. RuralShores is headquartered in Bengaluru and has set up 12 delivery centers in 8 Indian states with investments from major financial companies. The objective of the company is to set up one such delivery center in 500 rural districts of India.

Tecnology Used:

Zend framework, Linux, Apache, MySql, PHP, HTML5 and CSS3

Data Digitalization

Business Situation:

With the phenomenon of outsourcing back-office operations from the West to the low cost destinations like India taking the backstage, BPO companies are trending towards rural areas due to factors like availability of untapped talent, affordable lower estate and lower operational costs. The key challenge here was to build a strong and powerful data entry system for the operators at RuralShores to use.

Solution Approach:

Understanding the traditional approaches of digitalization along with in-depth research on human computer interaction, optimized data entry patterns were established, which in turn quadrupled the efficiencies of data entry with high accuracy levels and lower operator fatigue.

Simplistic UI approach based on research along with natural color patterns for various data entry stages was given due significance. Various analytics and fine control mechanisms at various data entry stages provided significant quality advantages. LAMP stack on a scalable architecture with the power of Amazon Elastic Compute Cloud, helped Rural Shores achieve 24/7 high throughput and location independent operations.

Optimizations at all levels from bandwidth to transaction engines of databases were critical along with load, latency, speed etc. A non-RDBS system was introduced to increase the number of inserts and MyISAM were used to improve selects statements. We de-normalized the tables to avoid locking and select joints was used for processing performance for data insertions, deletions and selection. Also scanned documents were optimized for high throughput at unreliable bandwidth of the datacenters. Effective and efficient coordinate mapping was devised for inconsistently scanned images.

¤ Use of same portal for individuals to participate in an easy-to-use interface where the details are recorded on runtime.

- Existing data was used to create meaningful entities as star schema and fact tables, which were again used to compile cubes.

- Maintaining data in the form of Online Analytical Processing cubes, that are data structures, which can be broken down into subsets of different dimensions of significance, within a data warehouse.

- Identifying cubes that are significant to the business issue for the clients and identifying Key Result Areas.

- Use of interactive graphs and charts which graphically represents the data analyzed in an easier way to figure out the reports.

Benefits & Results:

- The system supports up to 1000 simultaneous data entry user requests at any given time.

- Less than 2 second latency between forms. Note that this value does not include the user network latency.

- Precise identification, assimilation and entry of data due to implementation of UI based on human computer interaction.

- Location independent operations with configurable user management.

- Analytics for analyzing productivity, quality of agents and strategizing of manpower.

- Quadrupled qualitative output in comparison with earlier data entry systems.