www.domains.lk

Domain Registration System

By Roshini Peter
Old System and Limitations

Old Registration System

Limitations

- Account Based Domain Registrations.
- Enabling DNSSEC and IXFR Zone Transfers.
- VAS (Cloud Services, Vulnerability Assessments with Verified Web, Web Hosting etc)
Motivation for a New Registration System

- Inflexibility / Incompatibility of Old System to integrate new features.
- Main Architecture & the concepts of our Domain Registry does not comply with the Domain Registration Systems available in the market
  - CoCCA
- Software Development Experience / Capabilities available with LK Domain Registry.
New Registration System

- Development of New Registration System
  - Done by In House Software Development Team + 3rd Party
  - Using a framework “SilverStripe”
Critical Success Points

- Migration of Existing Domains, and the rest of the Database to the new system.

- Maintenance of a continuous DNS functionality without any down time during migration.
Deployment Stages

1st Stage

- **August 2015**
  - Control Panel for customers & Account based Registrations (User Account creation)

- **Nov 2015**
  - Database Migration (snapshot)
  - Domain Modifications with new system
  - Incremental zone file update with DNSSEC (Fast Zone updates)
  - New Registration, Deletion, Renewal with Old System and update new system via Batch Process (CRON).
Deployment Stages

2^{nd} Stage
- May 2016
  - Final Database Migration.
  - New Domain Registration & all other functions.

3^{rd} Stage
- March 2017
  - Account Based & Enhanced Payment Methods.
  - Organizational Customers etc
  - Suspension, De-registration and Re-activation
Deployment Stages

4th Stage

- **Dec 2019** - Upgrade Silverstripe 3.3 to 4.1

- Has significantly increased stability (i.e. minimized downtime)

- Provides web applications with the capability to reply faster to queries (i.e. improved performance)

- Has improved security and therefore better defense against certain cyber attacks.
Constraints Faced During Deployment

- Customer Reluctance – Less Awareness / Knowledge / Reluctance to change.
- Lack of Web Resources to integrate with Silverstipe.
- System Issues and bugs in the new system.
- UAT testing made difficult with the existing staff.
New Features/Achievements

- Provides E-mail, Web, Office Applications and File Sharing for SMEs as a One Stop Shop.
- Professional Site Builder with Attractive Templates.
- Enhanced security, flexibility and customized solution using open source products.
Proposed New Features

- **LK Cloud**
  Provides infrastructure with Openstack Cloud Platform

- Integrating **Internationalized Domain Names** (IDNs)
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- Integrate the **cloud (File Sharing)** and **Office (Online Doc Editing)** Services.
THANK YOU