Isha Migration Document

Table of Contents

Isna Migration Document	
Approved by:	2
Prepared by:	
Introduction	2
Requirement	3
Challenges	3
Solutions / Suggestions	
Implementation Plan	4
Code Deployment	
Git	4
Content Types	4
Shortcodes	4
Code	
Migration	8
Import from Wordpress	8
Widgets / Components	12
Apache Solr	12
Introduction	12
Solr Search	13
Solr Implementation	13
Drupal Search API	13
Search API	13
Other Search Engines	17
ElasticSearch	
Amazon CloudSearch	18
MYSQL	18
Update MySQL Tables	18
Support For Multilingual Content	18
Modules Enabled – Enable Dependant Modules	18
Installation	18
API Documentation	19
EndPoints For Services	20
Yoast SEO	21
Scope Of Document	22
Constraints	22
Risks	22
Conclusions	77

Approved b	oy:		
		Date	
Prepared by	y:		
	Sunil S Kumar	4 th October 2016 Date	

Introduction

Documenting the process of migration strategy and integration of other dependant / core features & modules. Support with a flexible framework and organize the implementaion stategies.

Requirement

Migrate and Consolidate Different Wordpress Sites to one Single Drupal Website.

Challenges

- The site is a multilingual blog site with defined categories.
- Shortcodes were used to display special type of content with added Wordpress plugins, and had added attributes like text, source path & links and html content defined in shortcode.
- Closing tags for few shortcodes were omitted, e.g. [dropcap]T where it should have been [dropcap]T[/dropcap]
- Videos were Embeded in shortcodes.
- Shortcodes had to be identified seperately for implementation
- Over 30 Shortcodes were used in about 6000 articles
- Sliders, Galleries and Featured Images.
- Embeded Videos in content
- Podcasts (a digital audio file made available on the Internet).
- Embeded Comments with Disqus
- E-Commerce
- One to one Migration of the articles.
- Recreating the users and their respective roles and permissions
- WXR export to XML File. (Wordpress eXtended Rss)
- Search Implementation.
- Comments
- Caching of the Pages
- SEO Pages

Solutions / Suggestions

A CMS with high

- Reliability
- Flexibility
- Secure
- Robust & Convenient
- Highly Scalable
- Low Learning Curve
- Support for existing blogs
- Multilingual Support
- Ecommerce
- Memcached
- ✓ Drupal would be the right choice that supports the above Features.

Implementation Plan

Code Deployment

Git

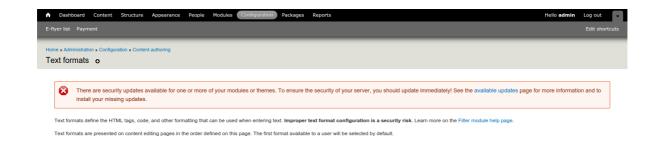
- Initialize git in a directory
- Create a Branch in local
- Add files to the branch
- Commit changes into branch
- Push local changes into Repo Server
- Get the Development branch code to local branch

Content Types

- Create separate content types to hold various articles for example the blogs in the website had a slider, or a Gallery or a Featured Image on every single page depending on the type of the article
- The Container had to be created keeping in view the article in the wordpress site.

Shortcodes

- ✓ Custom Shortcode should be developed to support Wordpress Shortcodes
 - Support for the special contents had to be created and implemented accordingly.
 - Download the stable version and enable the Shortcode module from https://www.drupal.org/project/migrate
 - Enable the checkbox for Shortcodes, and Shortcodes html corrector (Enable only if you using wysiwyg editor.)



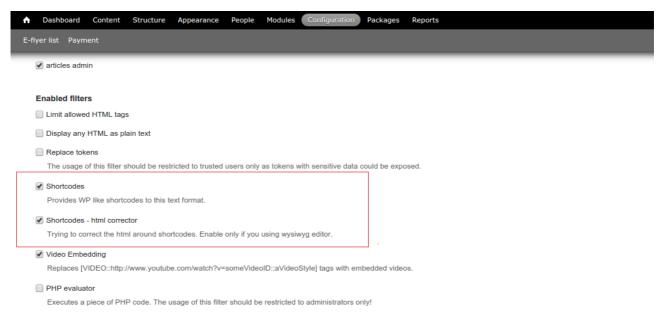


Illustration 2: Enable Shortcodes

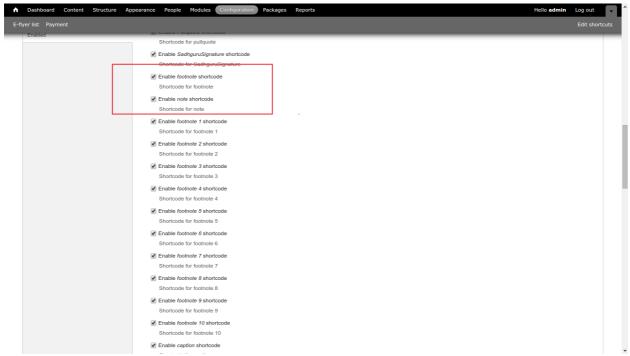


Illustration 3: Enable Shortcodes

- Search for Filter settings
 - a. Click on Shortcodes Tab
 - **b**. Enable desired Shortcode by clicking on the checkbox for, e.g. Enable footnote shortcode , Enable note shortcode
 - **c**. Save Configuration
- Go to content editor / cck editor and type / copy paste the below

a

[dropcap]T[/dropcap]his culture draws its roots on profound observations of the human system and its relationship with the Earth

b.

[footnote]

[note number="1"]The Inner Way is a rare opportunity to imbibe the timeless science of yoga from Sadhguru. The retreat held amidst the serene surroundings of Isha Yoga Center at the Velliangiri Foothills i2 Southern India offers scientifically structured methods to optimize health and wellbeing on every level.

/note

[note number="2"]The Inner Way is a rare opportunity to imbibe the timeless science of yoga from Sadhguru. The retreat held amidst the serene surroundings of Isha Yoga Center at the Velliangiri Foothills in Southern India offers scientifically structured methods to optimize health and wellbeing on every level.

[/note] [/footnote]

- [1] The Inner Way is a rare opportunity to imbibe the timeless science of yoga from Sadhguru. The retreat held amidst the serene surroundings of Isha Yoga Center at the Velliangiri Foothills in Southern India offers scientifically structured methods to optimize health and wellbeing on every level.
- [2] The Inner Way is a rare opportunity to imbibe the timeless science of yoga from Sadhguru. The retreat held amidst the serene surroundings of Isha Yoga Center at the Velliangiri Foothills in Southern India offers scientifically structured methods to optimize health and wellbeing on every level.

Illustration 4: output for the Footnote & note Shortcode

Code

- Code Snippet for divider shortcode
 - Defined in the module file

```
function custom_shortcodes_shortcode_info() {
    $shortcodes['pullquote'] = array(
        'title' => t('Pullquote'),
        'description' => t('Shortcode for pullquote'),
        'process callback' => 'custom_shortcodes_shortcode_divider',
        'tips callback' => 'custom_shortcodes_shortcode_divider_tip'
);
```

• The Tips Callback Method in the include file

```
function custom_shortcodes_shortcode_divider_tip($format, $long) {
    $output = array();
    $output[] = '<strong>' . t('[divider]text[/divider]') . '</strong> ';
    $output[] = t('divider') . '';
    return implode(' ', $output);
}
```

Process Callback Method

```
function custom_shortcodes_shortcode_divider($attrs, $text) {
    $attrs['type']=";
    if(is_array($attrs))
        extract($attrs);
    return '<div class="isha-divider ' . $attrs['type'] . '"></div>';
}
```

Migration

Import from Wordpress

- ✓ Migration Module
 - WXR / the exported xml file from the wordpress site is used.
 - A flexible framework to migrate content from other sources like wordpress, out-ofthe-box support for creating core drupal objects like nodes, users, files, terms and comments.
 - Migration Module

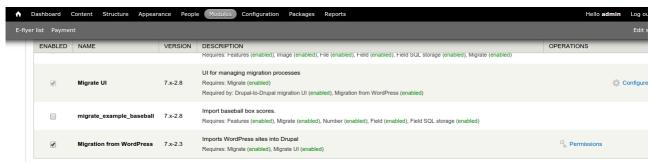
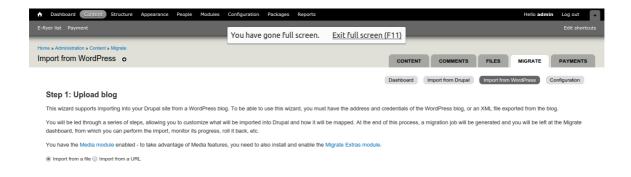
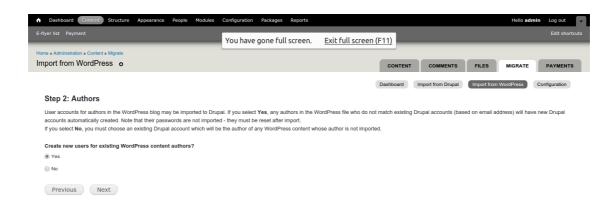


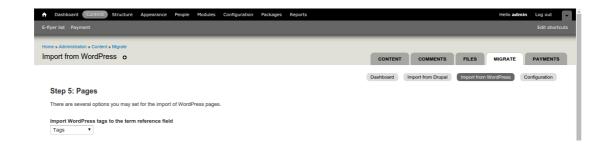
Illustration 5: Enable Migrate Modules as Shown

- once the modules are enabled go to the content creation page
- On this page you will find a new "**Migrate**" tab added to the tabs on top on clicking this will take you to the migration configuration page.
- Here two or three menu links give an option for viewing the
 - **Dashboard** View the Migration Dashboard
 - Import From Wordpress Migrate to Drupal from wordpress
 - Configuration
 - if Migrate_d2d (drupal to drupal) module is enabled then you can also find "Import from Drupal" Link



- Few Parameters have to be set based on the Categories
 - Following Screens Depict the same





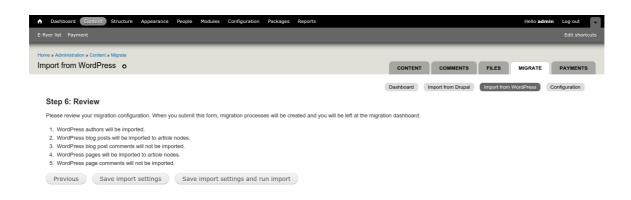


Illustration 8: Final Step - Import Confirmation Page



Illustration 9: Importing . . .

- If any fields are not mapped or not imported, during migration, these fields have to be manually Mapped / Imported in the Migrate Module
 - For E.g. The Images in the content may be mapped but may not be imported as the XML File do not contain Images, These short-falls would have scripted in the code, below is a short snippet of importing image into the destination folder
 - in sites/all/modules/migrate/plugins/destinations/node.inc, below snippet demonstrates fetching of Slider images by scraping from the source URL

```
public function import(stdClass $node, stdClass $row) {
    $scraip = true;
    $urlArr= explode('=',$result['guid']);
    $amazonulr = 'http://ishadev.s3.amazonaws.com/field/image/';
    $fimgurl = $amazonulr.'feature_image_'.$urlArr[1].'.jpg';
    $simgurl = $amazonulr.'slider_image_'.$urlArr[1].'_0.jpg';
    if(@getimagesize($simgurl)) {
        $scraip = false;
        for($i = 0; $i <= 10;$i++) {
          $sliderimgurl = $amazonulr.'slider_image_'.$urlArr[1].'_'.$i.'.jpg';
        if(@getimagesize($sliderimgurl)) {
          $simagesArr['sliderImages'][] = $sliderimgurl;
        } else {
          break;
        }
    }
}</pre>
```

- Mapping of the Content Fields to the Drupal Content Fields. e.g. Mapping the slider images and Featured images separatly with the actual content.
- Scraping and uploading these images(Slider / Featured Images) during migration of each article to the Amazon S3 server.
- Yoast SEO for Drupal.

Widgets / Components

- ✓ Custom Widgets for reusability.
 - 30 Components were identified as reusable components
 - Shortcodes for the widgets
 - Taxonomy terms were created .
 - Styles based on these components
 - Can be reused on any page or container by typing in an editor

Apache Solr

Introduction

Apache Solr is a search platform focused on delivering enterprise class, high performance search functionality. The Apache Solr Drupal integration module makes it relatively easy to replace Drupal core search with this external search platform. Apache Solr runs as a separate service from the web server and the database, so requires some extra resources. Normally this means a dedicated server rather than cheaper shared hosting. The fact that it is separate means that it can scale independently of the other two services, from being run on its own dedicated server through to its own cluster. Facets are attributes of content that allow filtering alongside the user's search query. High traffic sites running search queries against the database can start

to degrade the site's overall performance if the database becomes the bottleneck. This is also true for lower traffic sites with lots of content. Complex search queries can be slow to run. Lucene is the internal indexing and search library that Apache Solr uses to deliver its search functionality, Solr can be considered the 'service' wrapper around the Lucene engine.

Solr Search

- Advanced Full-Text Search Capabilities
- Optimized for High Volume Traffic
- Highly Scalable and Fault Toler
- Easy Monitoring
- Near Real-Time Indexing
- Flexible and Adaptable with easy configuration

Solr Implementation

- unzip the Tar file to /opt/
- install JDK
- sudo /opt/solr/bin/solr start
- sudo /opt/solr/bin/solr create -c drup

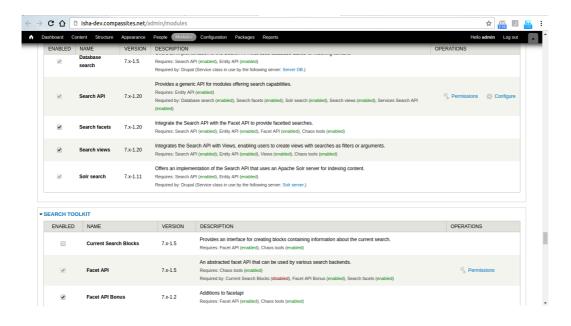
Drupal Search API

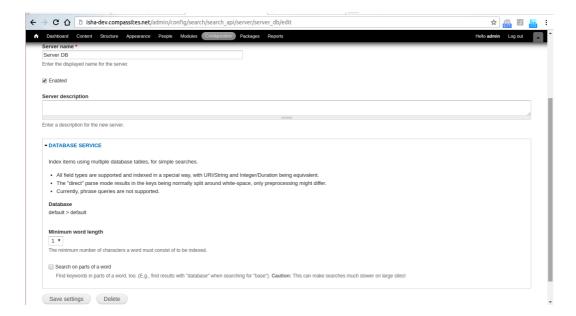
- Should use Drupal search core module only when performance do not matter (as it's using database backend)
- Site is not so complex (in terms of search functionality).

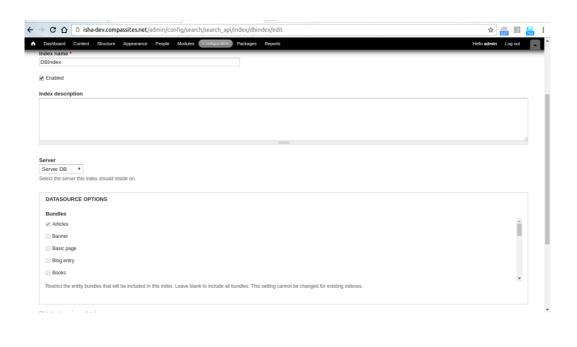
Search API

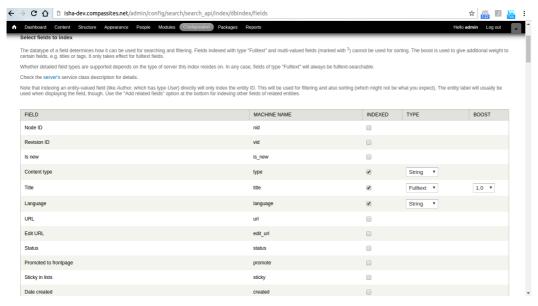
- ✓ Install and Enable
 - Database Search, Search API, Search Facets, Search Views, Facet API, Facet API Bonus
- ✓ Configure the DB Server
 - admin/config/search/search_api/server/server_db/edit
- ✓ Configure the Index
 - admin/config/search/search_api/index/dbindex/fields
 - Select all entity fields need to be indexed
 - Use Case Isha, fields selected are- Content type, Title, Language, Date changed, number of views, entity html output, the main body text->Text, the main body text->Summary, youtube video->video_url. --> Pic 4 and
- ✓ Set up the Filters
 - admin/config/search/search_api/index/dbindex/workflow
 - Use Case Isha, filters selected are- Bundle filter, Language control, Complete entity view, Ignore case, HTML filter

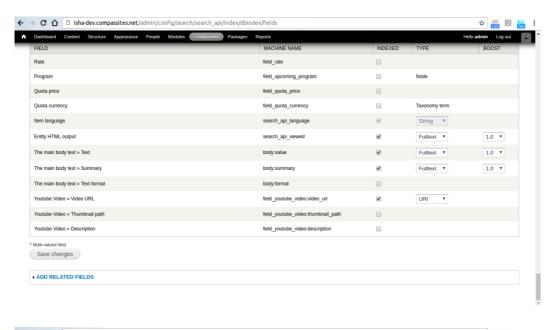
- Facet Setup
 - admin/config/search/search api/index/dbindex/facets
 - Use Case Isha, filters selected only- Content type
- DB Index->Facets->Content type->configure filter
 - admin/config/search/facetapi/search_api%40dbindex/block/type/filters
 - In Isha configure filter used only on-> Content type
 - Enable checkbox-> Rewrite facet item
 - Code is at custom features facet items alter()
 - Path->sites/all/modules/custom/custom features/
- Follow Screen Shots for better understanding

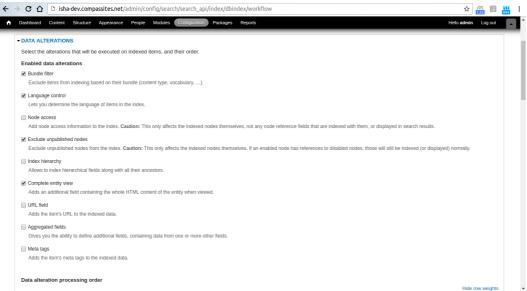


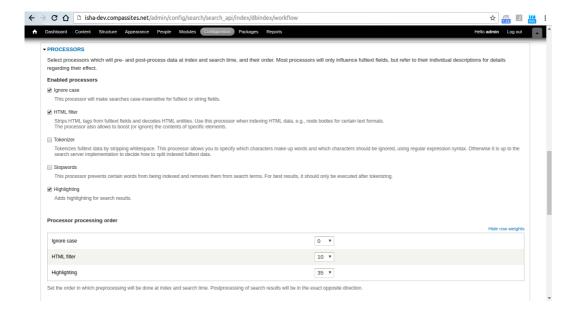


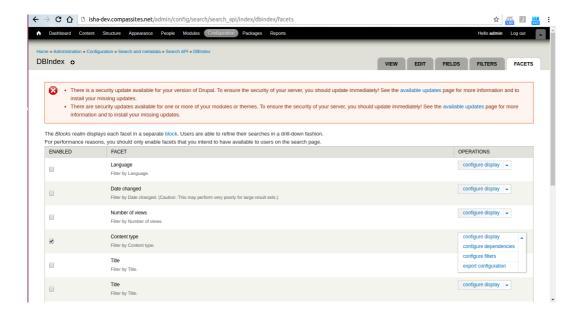












Other Search Engines

ElasticSearch

- It is an Open Source (Apache 2), Distributed, RESTful, Search Engine built on top of Apache Lucene
- Uses the same backend search engine as Solr, namely Apache Lucene.

Amazon CloudSearch

• Amazon CloudSearch is a fully-managed search service in the cloud that allows customers to easily integrate fast and highly scalable search functionality into their applications.

MYSQL

Update MySQL Tables

- SQL Queries to force close the shortcodes where ever possible in the wordpress database before migration.
 - e.g. [divider] was closed with [divider /] by using a SQL Query
- Manual Updates where content could not be updated using queries
 - Manual Closing of shortcodes when queries failed. e.g, [youtube]https://youtu.be/JWnyTJ96upw to [youtube]https://youtu.be/JWnyTJ96upw[/youtube]
- Query t o Update Mysql Source database before Migration.
 - UPDATE wp posts SET post content =

replace(post_content, '[SadhguruSignature salutation="Love & Grace" align="left"]', '[SadhguruSignature salutation="Love & Grace" align="left"]') where locate('[SadhguruSignature salutation="Love & Grace" align="left"]', post_content);

Support For Multilingual Content

Modules Enabled – Enable Dependant Modules

- locale core module in drupal 7
- internationlization(i18n)
- localization update(110n_update)
- entity
- entity translation
- title
- variable

Installation

- Follow below path to add Language
 - Administration->configuration->Regional and Language->Languages->Add language
- Enable Translation Entity types
 - Add the entity translation upgrade for article and pages
- Add the user interface and language detection from the following path
 - Administration-> Configuration-> Regional and language-> Languages-> detection and selection
 - select the url option (Determine the language from the URL (Path prefix or domain) and enable it
- To change the publish option

- Administration ->Structure->content types->article->edit->publish options->multilingual support
- select the enable with field translation
- To change title field
 - Administration ->strtucture->content types->article ->manage fields
 - click the replace link for the title field and enable the Replace title with a field instance and save it
- To change the multilingual option for menu
 - Administration -> Structure-> menus-> Main Menu -> edit
 - change the MULTILINGUAL OPTIONS to Translate and Localize. Menu items with language will allow translations. Menu items without language will be localized.
- To edit the multilingual option for fields
 - Administration->Structure->Content Types->Article->manage fields->edit particular field
 - At bottom you can see field transalation option enable it.
- To add an article
 - Administration->Content->Add Content->Article->Enter the title and description
 - Then select the desired language from language dropdown and save it.
- Once the content is created you can edit the content, to Edit follow the below path
 - Administration->Content ->edit particular content
 - at the top of the page you can see the translate tab. By using this you can convert the content into other installed languages.

API Documentation

- **Service** (provides an API for creating web services).
- Service module of drupal will provide 2 Servers REST & XMLRPC Server.
- REST Server is Enabled in modules.
- Custom module helps in complete customization of output format as desired.
 - Api services can be extended by using hook services resources
- Below is a standard 'CRUD' operations are possible with an additional operation called index

```
$api = array(
  'home' => array(
    'operations' => array(
        'index' => array(
        'help' => 'Home Page Data',
        'file' => array('file' => 'inc', 'module' => 'api', 'name' => 'static'),
        'callback' => 'home_page_data',
        'access arguments' => array('access content'),
        'args' => array(
        array(
        'name' => 'data',
```

```
'type' => 'struct',
    'description' => 'Create api to for home page',
    'source' => 'data',
    'optional' => FALSE,
    ),
    ),
    ),
    ),
    ),
),
```

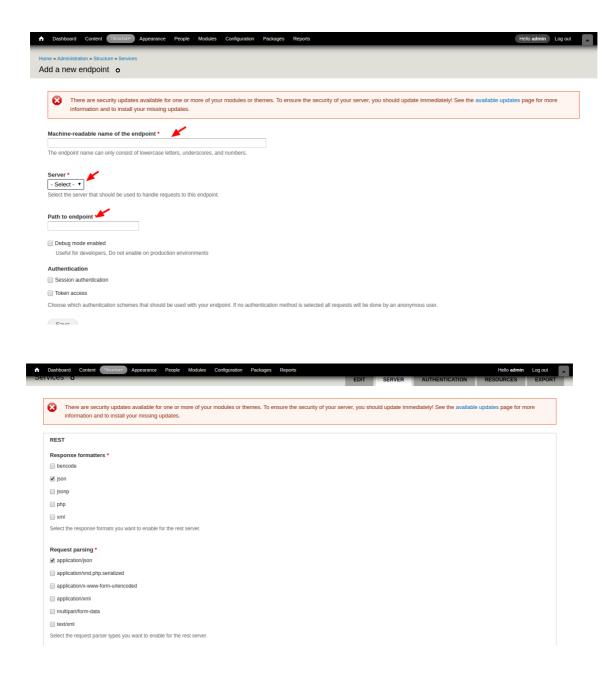
- Callback functions can be defined in an include file and the arguments can be passed as function parameters, Entity queries can be used to fetch data from the Database
- To understand more of Entity Field Queries, please Follow the Link to EntityFieldQuery
- Curl Example for getting content from other API, here the use case for fetching the mystic quote.

```
$json_url="http://quotes.isha.in/dmq/index.php/Webservice/fetchDailyQuote";
$ch = curl_init();
curl_setopt($ch, CURLOPT_SSL_VERIFYPEER, false);
curl_setopt($ch, CURLOPT_RETURNTRANSFER, true);
curl_setopt($ch, CURLOPT_URL, $json_url);
$result = curl_exec($ch);
curl_close($ch);
$data_dmq = json_decode($result);
if(!empty($data_dmq->response->data[0]->id)?$data_dmq->response->data[0]->id:";
$quote=!empty($data_dmq->response->data[0]->eng_text)?$data_dmq->response->data[0]->eng_text:";
}
$dqm = array();
$dqm['id']=$did;
$dqm['quote']=$quote;
```

EndPoints For Services

- Creating end Point to make API Calls
- login as admin Structure > Services > add
- Enter Machine readable name, Select the server as REST server & path to the endpoint
- SAVE to save the details.
- To test if the end point creation is successful, please hit the URL on your browser for e.g. if you have created an endpoint called "api" http://example.com/api you should be able to see a message like "Services Endpoint "api" has been setup successfully."
- Click on Edit Resources, under Server tab, select Resource format as ison
- In Resources tab, all the API's Created is listed here, for every change in code, the api need to be enabled and disabled in the services tab, at times the drupal cache also need to be cleared for the changes to affect.

• Below Screens should give an idea of creating endpoints.



Yoast SEO

- SEO stands for "search engine optimization." It is the process of getting traffic from the "free," "organic," "editorial" or "natural" search results on search engines.
- Easily optimize your Drupal site with one plugin, content analysis functionality to streamline your site, optimize your post title and meta description & preview your snippet
- Yoast SEO for Drupal allows you to set a focus keyword, which is used for content analysis.
- The Yoast SEO for Drupal module will run more than 10 checks on your content and will provide feedback on every point. This will help you to optimize the page for better ranking.

- Using this module you can easily optimize your post title and meta description, and the snippet preview functionality shows you what it would look like in Google. It also shows how it would bold in your search results, and you have the chance to control everything you want about your listing in Google.
- plugin automatically tests the most important area's of your content for usage of the focus keyword, so you can truly optimize your page for the term you need.

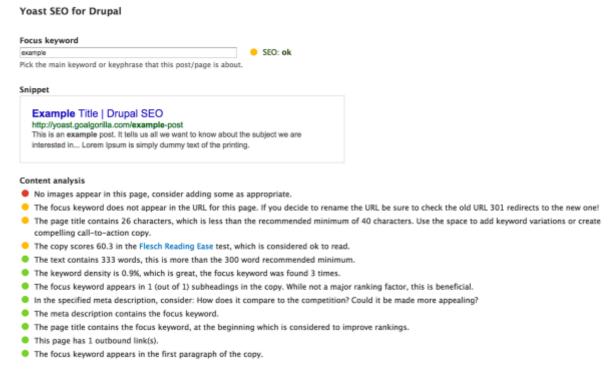


Illustration 10: Automatic Sample Yoast SEO Plugin Test Screen

Scope Of Document

This document explains how to migrate an existing website (wordpress or any other CMS) and deploy it to a drupal 7 CMS website, expects a minimal understanding of Drupal based objects, & Objected Oriented PHP Knowledge.

Constraints

Risks

Before Starting the activities of migration database and the code need to be backed up.

Conclusions

This document is written to understand the basic concepts and stategies to be executed during the development and migration of websites from a non Drupal CMS Environment to a Drupal Environment.