

# **Application Module Design**

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## Overview

This document covers all modules that will be included in the initial web infrastructure development, briefly listed as following:

- Public Corporate Website
- Contact Portal
- User Account Portal
- Content Management System

The customer portal and employee portal are not within the initial development plan and will be discussed in a separate document.

Furthermore, this document is written as the reference for test design and thus should cover not only the function description but also the detailed request requirement and response format, which will gradually be filled in as the development goes.

## Corporate Website

The corporate website is designed as a three-layer structure.

- index
- category with all sub-categories within it
- sub-category with all posts within it

On the top level, it has the index page as the homepage with navigation bar and highlight information like corporate news, signature products and white papers.

The second level is the categories that users can navigate into through navigation bar on the homepage. For example, when user step into “products” category, it will give user a list of all products provided by Symbolic IO Corporation with brief introduction of each product.

The last level is post around that specific sub-category. Again take the “products” category example and “Tesseract” will be one of the sub-categories defined under that category. There will be overview, capacity and specification articles introducing the product, each of them will be one post.

### Index page

The index page is the homepage for the website when user visit.

Path

• /

Request type

- Get

Parameters

- No

Privilege Requirement

- No privilege requirement, all users will be able to see it.

Response

- HTML file

## Category page with sub-categories associated

The category page will display the sub-categories related to that category.

Essentially, it will be only one function handle all sub-category requests, even though you see different tabs on navigation bar on index page. This means [www.symbolicio.com/products](http://www.symbolicio.com/products) and [www.symbolicio.com/solutions](http://www.symbolicio.com/solutions) will call the same controller backend function and the route will serve as the parameter for data retrieval.

Path

- `/:category`

Request type

- Get

Parameters

- No

Privilege Requirement

- No privilege requirement, all users will be able to see it.

Response

- HTML file

## Individual post page

The individual post page is the article posted under that specific sub-category. It has a very similar structure design as sub-category and let only one function handle all incoming requests. When there is no post-title parameter provided, it will load index post within that sub-category.

Path

- `/:category/:sub-category`
- `/:category/:sub-category/:post-title`

Request type

- Get

Parameters

- No

Privilege Requirement

- No privilege requirement, all users will be able to see it.

Response

- HTML file

## Contact Portal

The contact portal is a web page that user will be able to send message to customer service team at Symbolic IO Corporation. It stores all information within CMS system during initial development stage. However, we planned to forward the enquiry to corresponding customer service team through email in the future.

### Render contact page

Users can send the get request to get to the contact information page.

Path

- /contact

Request type

- Get

Parameters

- No

Privilege Requirement

- No privilege requirement, all users will be able to see it.

Response

- HTML file

### Send enquiry

Users can send enquires through this protocol for product information, partnership, support and other issues.

Path

- /contact

Request type

- Post

#### Parameters

- Email
- First name
- Last name
- Type of request
- Message

#### Privilege Requirement

- No privilege requirement, all users will be able to send this request

#### Response

- JSON string with errcode

## User Account Portal

The user account portal is public portal for potential customers, investors to register in Symbolic IO Corporation system to receive product update, white papers publication and other subscription. It also serves as the single sign in point for Symbolic IO Corporation customer, employees.

### Signup

Users can send the get request to get to the signup page.

#### Path

- /signup

#### Request type

- Get

#### Parameters

- No

#### Privilege Requirement

- No privilege requirement, all users will be able to see it.

#### Response

- HTML file

Users can signed up and will be associated will “guest” user type by default.

#### Path

- /signup

#### Request type

- Post

#### Parameters

- Email (username)
- Password
- First name
- Last name
- Company

#### Privilege Requirement

- No privilege requirement, all users will be able to send this request

#### Response

- JSON string with errcode

## Signin

Users can send the get request to get to the signin page.

#### Path

- /signin

#### Request type

- Get

#### Parameters

- No

#### Privilege Requirement

- No privilege requirement, all users will be able to see it.

#### Response

- HTML file

Users can signed in and will be redirect to the homepage by default. However, if users are being redirected to the signin page because they are not associated with the proper privilege, they will be redirect to the original request resource once they signed in with proper privilege.

#### Path

- /signin?redirect\_to=xxxx

#### Request type

- Post

#### Parameters

- Email (username)
- Password

#### Privilege Requirement

- No privilege requirement, all users will be able to send this request

#### Response

- 302 redirect information
- JSON string with errcode if the user is not associated with the proper privilege

## Signout

User can signout and will be redirected to the homepage no matter where they were originally at.

Path

- /signout

Request type

- Post

Parameters

- No

Privilege Requirement

- The request should associate with the corresponding session ID in HTTP request header

Response

- 302 redirect information

## Account

Users can send the get request to get to the account information page.

Path

- /account

Request type

- Get

Parameters

- No

Privilege Requirement

- The request should associate with the corresponding session ID in HTTP request header

Response

- HTML file

Users can modify their account information on the account information page through modals. It will close the modal once the request succeeds.

Path

- /account

Request type

- Post

Parameters

- Field they want to modify

Privilege Requirement

- The request should associate with the corresponding session ID in HTTP request header

Response

- JSON string with errcode

## **Content Management System**

### **(The part is highly subject to change!)**

The CMS will be internally used by editors and administrators to manage the corporate website for information publication and white paper release. It requires administrator privilege for users to create sub-categories, publish and retract articles on the website.

The CMS will be designed to have a similar visual structure as the corporate website for the easiness of understanding for editors.

### **Index page**

The index page is the homepage for the CMS system that user can navigate to other regions. It can potentially contains the report for corporate website page view report and other things may worth noticing.

Path

- /cms

Request type

- Get

Parameters

- No

Privilege Requirement

- User need to be signed in as editor or administrators to visit this page

Response

- HTML file
- 403 HTML file when user don't have privilege

### **Sub-category**

The category page will list all the sub-categories within the category.



Path

- /cms/:category

Request type

- Get

Parameters

- No

Privilege Requirement

- User need to be signed in as editor or administrators to visit this page

Response

- HTML file
- 403 HTML file when user don't have privilege

## Administrator can create new sub-category within the category

Path

- /cms/:category

Request type

- Post

Parameters

- Sub-category title
- Description
- Image

Privilege Requirement

- User need to be signed in as administrators to send this request

Response

- JSON string with errcode

The subcategory page will list all the sub-categories details as well as the index post shown when customers visit “/cms/:category/:sub-category”

Path

- /cms/:category/:sub-category

Request type

- Get

Parameters

- No

Privilege Requirement

- User need to be signed in as editor or administrators to visit this page

#### Response

- HTML file
- 403 HTML file when user don't have privilege

### Administrator can modify sub-category within the category

#### Path

- /cms/:category/:sub-category

#### Request type

- Put

#### Parameters

- Sub-category title
- Description
- Image

#### Privilege Requirement

- User need to be signed in as administrators to send this request

#### Response

- JSON string with errcode

### Administrator can delete sub-category within the category

#### Path

- /cms/:category/:sub-category

#### Request type

- Delete

#### Parameters

- No

#### Privilege Requirement

- User need to be signed in as administrators to send this request

#### Response

- JSON string with errcode

## Post

The Sub-category page will list all the posts within the category.

#### Path

- /cms/:category/:sub-cateogry

#### Request type

- Get

#### Parameters

- No

#### Privilege Requirement

- User need to be signed in as editor or administrators to visit this page

#### Response

- HTML file
- 403 HTML file when user don't have privilege

The single post page will display the detail for the post.

#### Path

- /cms/:category/:sub-cateogry/:post-title

#### Request type

- Get

#### Parameters

- No

#### Privilege Requirement

- User need to be signed in as editor or administrators to visit this page

#### Response

- HTML file
- 403 HTML file when user don't have privilege

User can create new post within the sub-category. The status of the post will be “unpublished”.

#### Path

- /cms/:category/:sub-cateogry

#### Request type

- Post

#### Parameters

- Post title
- Content
- ...

#### Privilege Requirement

- User need to be signed in as editor or administrators to send this request

#### Response

- HTML file
- JSON string with errcode when fails

User can modify post within the sub-category. It will not be published to the website until administrator approves. The status of the post will be “wait for update”.

Path

- /cms/:category/:sub-category/:post-title

Request type

- Put

Parameters

- Post-title
- Content
- ...

Privilege Requirement

- User need to be signed in as editor or administrators to send this request

Response

- HTML file
- JSON string with errcode when fails

## Administrator can delete post within the sub-category

Path

- /cms/:category/:sub-category/:post-title

Request type

- Delete

Parameters

- No

Privilege Requirement

- User need to be signed in as administrators to send this request

Response

- JSON string with errcode

## Administrator can publish the post. The status of the post will be “published”.

Path

- /cms/:category/:sub-category/:post-title/publish

Request type

- Post

Parameters

- No

#### Privilege Requirement

- User need to be signed in as administrators to send this request

#### Response

- JSON string with errcode

**Administrator can retract the post. The status of the post will be “unpublished”.**

#### Path

- /cms/:category/:sub-category/:post-title/retract

#### Request type

- Post

#### Parameters

- No

#### Privilege Requirement

- User need to be signed in as administrators to send this request

#### Response

- JSON string with errcode