Draft Response for delivering DITA.xml.org DITAw eb

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# Contents

Contents .................................................................................................................. 2  
Background ............................................................................................................... 4  
Introduction ............................................................................................................ 4  
  Mekon DITAweb .................................................................................................. 5  
Overview of Proposed Solution ............................................................................. 5  
Terminology ............................................................................................................. 6  
General Site Development Approach .................................................................. 6  
Site Pages ................................................................................................................ 7  
  Home Page .......................................................................................................... 7  
  Search Page ......................................................................................................... 8  
  Contributors List .................................................................................................. 9  
  Contributor Profile ............................................................................................... 10  
    Collections ....................................................................................................... 10  
  Content Page ....................................................................................................... 10  
  Events .................................................................................................................. 11  
  Resources ........................................................................................................... 11  
  Library ................................................................................................................. 12  
  About this site .................................................................................................... 12  
  RSS Feeds .......................................................................................................... 12  
Moderation of Content ............................................................................................. 12  
Dynamic Links and Suggestions ................................................................ .......... 13  
  Dynamic XML Element Links ........................................................................... 13  
  Dynamic Cross References ............................................................................... 14  
  Ranking results ................................................................................................... 14  
  Content Elevation ............................................................................................... 14  
Uploading Contributions into DITA.xml.org ......................................................... 14  
  Contribution Guidelines ...................................................................................... 14  
  Site Terms and Conditions, and Policies ............................................................. 15  
  Classification of contributions .......................................................................... 15  
  Migrating content from Drupal site ................................................................... 15
Uploading official OASIS DITA content .......................................................... 15
Creating content online .................................................................................. 15
Form-based Content Entry ............................................................................... 16
DTD Support .................................................................................................... 16
Gamification ...................................................................................................... 16
Content Discussion/Collaboration ................................................................... 17
Social Sharing .................................................................................................... 17
Sharing Content ................................................................................................ 17
DITA.xml.org on Twitter ................................................................................... 17
Twitter Q&A Sessions ....................................................................................... 18
DITA.xml.org on YouTube and Google+ ......................................................... 18
Schema.org Support ........................................................................................ 18
Implementation Plan ........................................................................................ 18
Kickoff Meeting ................................................................................................ 18
Site Design and User Experience ..................................................................... 18
Future Ideas ....................................................................................................... 19
LinkedIn Integration .......................................................................................... 19
Mobile iOS and Android App ............................................................................ 19
Ask the Expert ................................................................................................... 19
Webinars ............................................................................................................ 19
Background

Mekon had been planning to build a community site for DITA since the beginning of 2014 when it acquired the DITA.guru domain name. The aim of this site was to provide a focus on the individuals that contributed content, and to encourage further contributions through peer review and collaboration.

At Congility 2014 Mekon approached Michael Priestley with the aim to obtain permission to include his, and Amber Swope’s, DITA Maturity Model on the site. Michael explained that there was a desire to create a new home for DITA.xml.org, built using a DITA-based delivery solution.

Being the official home to DITA it seemed appropriate that the plans for DITA.guru could become the basis of a new site for OASIS. Mekon, therefore, offered to support this initiative seeing the value in providing a single site as a reference for information about DITA.

In order for OASIS to be seen as transparent in the selection of a new system other OASIS members have been invited to offer a solution. Mekon accept that another solution may be chosen.

Introduction

The OASIS DITA Technical Committee and DITA Adoption Committee are looking to change from its existing wiki-based hosting service for the DITA.xml.org site to one that is built upon a DITA-based content delivery platform.

DITA.xml.org is intended as a site for the DITA community. Building a DITA community is central to Mekon’s proposed solution. Not only should it be a site for members to upload content, it should also offer a useful resource to visitors of the site who need to find out about the different aspects of DITA – whether that’s best practice information, management-level information or technical details about DITA.

DITA.xml.org should be the “go to” resource for information about DITA. Some of this information will be hosted directly on the site, but other content may be linked to other sites. It would be down to the contributors – the community – to build the site.

Mekon plan to use some concepts of gamification to encourage contributions to the site. Contributors will not only be rewarded for the content they provide, but also for peer-based “usefulness”.

Mekon
intelligent content solutions
Using DITA to drive the content delivered in the site will help to illustrate the possibilities that the standard has to offer not only in content creation but also in how delivery solutions can be built using DITA.

DITA.xml.org will become a resource for the DITA standard that will provide newcomers, as well as those already familiar with the standard, a single place to find what they need at the level they want.

**Mekon DITAw eb**

The proposed solution will be delivered using Mekon DITAw eb – a platform for the delivery and collaboration of personalized DITA-based content. The “platform” is primarily a REST API.

The DITAw eb REST API provides the necessary tools to develop “content applications”, such as the proposed DITA.xml.org. From the ground-up, DITAw eb has been designed to be highly configurable by site developers.

The benefit of using a REST API is that content applications can be based on standard web development techniques (HTML5, JavaScript, Ajax) and does not rely on proprietary code. This opens up the possibility that Mekon can work with other members of the DITA community interested in working on aspects of the site. It also allows for much easier development of other delivery channels for hosted content, such as native mobile applications.

DITAw eb is already being used by a number of companies for the delivery of their content. These include Cray Inc., Altera, dunnhumby, Anritsu, Singapore and UK governments departments.

It is also being used to review the DITA 1.3 specification at [http://ditaweb.com/oasis-dita](http://ditaweb.com/oasis-dita). The user interface used here is just one example of a “content application” that uses the DITAw eb APIs.

**Overview of Proposed Solution**

At the heart of DITA.xml.org are the contributors and the contributions of content they make. The aim is to revitalize and reengage with the DITA.xml.org community so the site becomes the first place people will go to for information about different aspects of DITA.

Mekon believe that in order to do this more focus on those who contribute content is required – encouraging them to contribute. Whether that’s because they have posted an article, migrated content, or reviewed something. Some basic principles of gamification will therefore be applied to encourage more use of the site.
The content will be stored in DITA XML with support for other binary formats (PDF, ZIP) where this is required.

In order to provide a site that is easy to search and that allows visitors to discover content, metadata is essential. Mekon propose to work with the OASIS DITA TC and DITA Adoption TC to define a metadata scheme (taxonomy) that can be applied to the content (at the topic and semantic level) within the system. This will help to ensure that users visiting the site can find the information they need as quickly as possible. This taxonomy will be defined as a DITA subject scheme which DITAweb already provides support for in a number of ways.

Mekon are also keen to make the site compliant with Lightweight DITA with the possibility of using a dedicated content model that supports the proposed site features.

Contributors will be able to use the site’s subject scheme to classify their content to ensure that it returned in searches and dynamic queries, thus adding more value to the content.

**Terminology**

The following terms are used in this proposal.

- **Contributor** – a registered member of DITA.xml.org who has submitted content to the site.
- **Visitor** – a casual user of the site consuming content on DITA.xml.org
- **Administrator** – registered users who have the ability to manage different aspects of the site.
- **Moderator** – a registered user with the appropriate permission to moderate content and comments on the site.
- **Contribution** – the content, either a single topic or map-based, that a registered user submits to the site.

**General Site Development Approach**

DITA.xml.org will be implemented using current web development standards. The benefit of this is that the development of the site is not dependent on Mekon-specific code (apart from the DITAweb REST API) and demonstrates the ease in which DITA-based delivery systems can be built.

Technologies that are likely to be used include:

- JQuery
- Bootstrap (or other open responsive framework)
- DITAweb REST APIs
Angular JS

Mekon will manage and oversee all development for DITA.xml.org. It will also providing hosting for the site.

Mekon will work with OASIS DITA TCs to specify the actual requirements for the site. This will include:

- Agreeing site features and functionality over a phased approach
- Development of a suitable taxonomy/subject scheme for use within different areas of the site

**Site Pages**

The following is a list of pages that could be featured on the new site.

**Home Page**

The home page for DITA.xml.org will provide initial access to key areas of the site.

- Targeted content – this could either be a fixed topic, or a list of content based on metadata
- Recent contributions
- Popular contributions
- Upcoming events
- Search (across all pages)

DITAweb will display this content based on searches into the system. These searches are based on the metadata that can be indexed from the published contributions. It is therefore possible to be flexible about what is displayed on the home page and might also be based on registered user preferences – for example if a user follows a specific contributor.

The following two screenshots from an initial prototype provide an example of how the DITA.xml.org home page might look.
Search Page

This page will provide a site wide search for all content. It will offer the following:

- Full text search
- Filtered searching using DITA.xml.org taxonomy (DITA subject scheme)
- Sorting of result by date, popularity and other properties

Search results for articles will display the following:

- Title with link to separate page for the result
- Contributor name with link to their profile page
The following screenshot from the prototype shows how subject scheme filtering might look:

**Contributors List**

This page will provide a list of contributors to the site. Filtering, based on the subject scheme, could allow users to filter the list of contributors by subject. Selecting a contributor will open their Contributor Profile page.

An example from the prototype:
**Contributor Profile**

A contributor is a type of user who provides content to the DITA.xml.org site. This might be by way of an article, or larger DITA map-based publications.

This page will provide information about a specific contributor to the site. This will include the following:

- Contributor’s Avatar
- Profile of contributor
- Social networking links (Facebook, Twitter, LinkedIn)
- Links to contributed content
- Links to most popular topics from this contributor
- Subject scheme-based filtering of contributors’ content

The contributor’s profile information will be stored as a DITA topic.

The URL for each contributor will be in the form:

```
http://dita.xml.org/contributors/[contributor-name]
```

A list of all contributors will be provided by:

```
http://dita.xml.org/contributors
```

An RSS response that lists the contributions will be:

```
http://dita.xml.org/contributors/[contributor-name]?response=rss
```

When a contributor is logged in and visits their own page they will have the ability to edit their profile and to manage their contributions.

[Editor will allow quick insertion of youtube, vimeo and slideshare. Inserting URL and let UI do the rest – extract link and create object tag.]

Each contributor’s dashboard will provide the ability to create new contributions (articles). These will be created using an inline HTML-based editor.

All contributions will be stored as DITA.

**Collections**

Users will be able to create their own collections of content within DITA.xml.org with the provision of an export function to output them to PDF. Other output formats may also be provided via DITA Open Toolkit plugins – these may be extended during future phases of the site.

**Content Page**

Contributions within DITA.xml.org will be either single topics or a map-based content. The Content Page is where published content will be displayed to users.
The page will include the following features:

- Optional continuous scrolling for map-based content (from experience, some users do not like this feature so providing an option is important)
- Table of Contents
- Related links for map-based content
- Dynamic links based on semantics within content or other metadata-driven relationships between content
- Threaded commenting at topic level
- Social sharing links (see Social Sharing)
- Peer reviewing – this is the ability for users to acknowledge that a contribution has been useful and explain why. It provides a more meaningful assessment of content above providing just a simple “like” feature.
- Contributor panel shows the profile of the contributing author. This is useful when coming in to the page from a search engine or provided link. It ensures that the contributor is still focused.

Events

The events page will provide access to previous and upcoming events. Since events have other categories that do not fit with other content within the site, the filtering (subject scheme) will provide a more contextual list of facets. For example, filtering by:

- date ranges
- location (country)
- event type

Presentation of events online will include support for Schema.org events (http://schema.org/Event).

The ability to add an event will be available from this page. This will use HTML forms for content entry.

DITAweb provides an API that transforms (via XSLT) posted form data into DITA content. This content gets stored in DITAweb and published to the site. This is a unique feature of DITAweb that will be used in other areas of the site too.

Resources

Resources are links to externally hosted content, such as videos on YouTube and Vimeo, and presentation on Slideshare.

A form-based entry for creating new resources will be provided where contributors will be able to enter the URL of the resource. The oembed standard (http://www.oembed.com/) will be used to display these resources.
Library

The library provides access to approved map-based content. This will include:

- OASIS DITA 1.3 Specification
- OASIS DITA Adoption Committee Best Practices
- DITA Maturity Model
- Migrated content from Knowledge Base section of existing site
- DITA Style Guide for Authors by Tony Self
- Chapters from XML Press Publications
- Specialisation Guide by Eliot Kimber

Other contributors will be able to submit content into the library but it will first need to be approved. The reason for this is that the submitted XML will need to be compatible with the site’s support for specific DITA specialisations.

All content in the library will be categorised using the same subject scheme as other content.

These publications may be edited to apply additional semantic markup to enhance their use within the site. For example, mentions of XML tags will be identified.

About this site

This will be a contribution by Mekon that explains how the site has been developed using DITA at its core.

RSS Feeds

The web site will offer the ability to subscribe to RSS feeds. This may not be available at first release of the site.

Moderation of Content

An important aspect of DITA.xml.org will be the moderation of content. Policies will need to be defined that ensure that only moderated content is made live.

Content moderators will have the ability to comment on a contribution before it is uploaded, or accept it straight away.

The content moderator will also be able to approve users so that all future posts are automatically published.

Users will the appropriate permissions will be notified of content to be moderated.
Dynamic Links and Suggestions

As visitors browse content within the system the proposed solution will be able to recommend other topics to users. This is an important feature of DITAweb that will provide users with suggestions of other content that may be useful to them. It also provides a way expose the contributions of other users within the system.

Dynamic XML Element Links

A lot of the content within the site will mention specific XML elements and attributes. It is proposed that authoring guidelines are provided that will allow contributors to further enhance their content in order for improved findability within the system.

The example below shows a list of other content that mentions the <reltable> DITA tag after the red <reltable> content is clicked.
Dynamic Cross References

With “Dynamic Cross References” authors will be able to insert a link within their content that will return suggested topics based on metadata rather than just a fixed destination. This means that one contributor’s article could provide a dynamic cross reference to other contributors content.

In this example, clicking on the work “specialization” searches for other content that has been tagged with specialization.

Ranking results

Search results can be ranked within DITAweb. This can be based on various parameters and would be configured specifically for the site based on discussions with the OASIS team.

Whilst the intention would be to allow any contributed content to be returned in results, it might be desirable to rank certain contributions above others. For example, contributions from the DITA OASIS Adoption committee might to given a higher ranking. This would help to ensure that visitors are aware of official OASIS content relating to DITA.

Content Elevation

Search results can support the elevation of certain publications. This means that it would be possible, if required, to publish certain content to the top of search results. For example, a search for “xliff” could push the OASIS DITA TC best practice content to the top of the results.

Uploading Contributions into DITA.xml.org

Contribution Guidelines

To improve the quality and usefulness of contributions a set of guidelines will be provided. This will explain how semantic markup and metadata can help to improve features of the site. It will include guidance on using:

- Taxonomy
- Metadata
• Ranking results to boost certain contributions

Site Terms and Conditions, and Policies
Mekon will work with the OASIS DITA TCs to create terms and conditions for using the site.

Classification of contributions
DITAweb will index the classifications made on content. This will be according to the proposed site Taxonomy (subject scheme) or keyword usage that is already being used in content.

Migrating content from Drupal site
OASIS DITA TC and Adoption Committee will need to review the content that is already in the Drupal site with a view to deciding what needs to be migrated. Mekon will work with OASIS to determine how best to migrate content.

It is expected that some content will be migrated across at first launch of the new site, but it will be possible to individual contributors to also migrate content that they think will be useful.

Uploading official OASIS DITA content
Mekon will support the upload of content from the OASIS SVN repository. This is already in place for the DITA 1.3 specification review site and will be added to DITA.xml.org.

Mekon also recommend that the DITA Adoption Committee also manage their DITA content into the SVN repository so that it can be easily published. Mekon also acknowledge the need to provide downloadable PDF versions of this content.

Creating content online
Mekon will offer the ability to create content directly within the web site. This will make use of an editor from a third party – yet to be decided.

It is expected that the DITA editor with be a lightweight editor that supports the essential tags for authoring an article and to support some of the dynamic features that DITAweb and Mekon’s proposed solution has to offer. For example, dynamic XML element linking.

Contributors will be able to create single-topic articles that can be published within the system.

If nested topics are used then DITA’s chunking capabilities can be used to create a nested table of contents.
Form-based Content Entry

The DITAweb REST API provides a method for converting a web page’s form post into DITA content. This is achieved by:

1. Converting the posted form data into a simple XML format.
2. Applying a custom transformation to convert form data into DITA topics.
3. Storing DITA topics into the DITAweb CMS.
4. Publishing the stored DITA topic.

This capability provides a highly configurable way to create new content in DITAweb and will be used in a number of places, including adding new:

- Articles
- Events
- Resources
- News
- Comments

DTD Support

Contributors who have existing content that they wish to upload into DITA.xml.org may have used a variety of DITA specializations. For example, the DITA for Publishers document types may have been used.

DITAweb will support the standard DITA document types, and will also support some of the more common specializations (such as D4P).

If a contributor has a lot of content in another document type Mekon may be able to include their specializations in the default DITA Open Toolkit instance. This will need to be evaluated on an individual basis.

Contributions can, however, still be uploaded as PDFs, although some of the more dynamic topic-level features of the site would not be available.

Gamification

The primary aim and hope of Mekon’s approach to DITA.xml.org is to rejuvenate the community. This will be done by not only providing a more up to date user experience for users, but also reward those who contribute to the site using some of the principles of gamification.

Some of the ways in which contributors will be rewarded include:

- points for contributing a new article
- points for receiving peer reviews (more than just a “like”)
• points for migrating an article from the old site – where the original contributor is acknowledged and the user migrating the content is too.

Further exploration of this feature will be researched before implementation.

**Content Discussion/Collaboration**

Registered users within DITA.xml.org will be able to comment on content. Replies to comments will also be possible, allowing a threaded discussion similar to blog pages.

Mekon are aware of the current spamming issues and will ensure that this is not possible with the new site. Moderation of initial comments will therefore be put in place.

**Social Sharing**

Making the DITA.xml.org site more “social” will help to build the community by raising awareness of the content, and contributors on the site.

**Sharing Content**

Links will be provided on pages to share with popular social media website such as Twitter, Facebook and LinkedIn. Each of these sites support Facebook Open Graph markup which will also be used on the site. This will include:

• og:title – from topic title
• og:description – from topic short description
• og:image – from image in page or contributor’s avatar
• og:url – from page URL

**DITA.xml.org on Twitter**

An official OASIS DITA.xml.org twitter feed could be provided to promote content from the site and other OASIS DITA activities. This might include:

• New posts could be listed on Twitter.
• Achievements reached could be tweeted (for example based on popularity of content) – thus promoting individual contributors.
• Announcements can be made.

Consideration about who administers the Twitter feed will be required, especially in relating to answering messages that might get asked.

Any Twitter account would be used primarily to raise awareness of content on the site and OASIS activities, and not used for personal opinions.
Twitter Q&A Sessions

Making further use of Twitter might include planned Q&A sessions where experts make themselves available for the DITA community to ask questions on a specific topic.

DITA.xml.org on YouTube and Google+

A YouTube channel for DITA.xml.org could provide an official home for videos that are created on behalf of the site. Hosted videos might include:

- presentations by DITA TC members about the standard
- introduction to the new DITA.xml.org web site
- recordings of webinars

Schema.org Support

Where appropriate, Schema.org types will be used in the content offered in DITA.xml.org. The following types will initially be supported:

- event – used for each event listed in search results or individual event pages
- place – used within events
- person – used for users within the system

Implementation Plan

Kickoff Meeting

Should Mekon have been awarded the opportunity to host DITA.xml.org a kickoff meeting will be arranged in order to discuss project timelines and site requirements.

Site Design and User Experience

The site will be developed using a mobile-first approach. It will therefore be fully responsive, with support for desktop, mobile and smartphone displays.

The design will provide a modern remake of the current site with new features.

Mekon will work with the OASIS DITA TCs to approve the site design and user experience.
Future Ideas

LinkedIn Integration

Whilst authentication with other site is possible, for example Facebook and Twitter, LinkedIn provides an interesting potential.

LinkedIn provides an API that allows for a user’s skills to be queried. If these can somehow be linked to information hosted in DITA.xml.org, possibly from the site’s subject scheme, there is a possibility of offering the user content related to their skills.

Further investigation as to the potential will be undertaken and proposed to the committee before implementation.

Mobile iOS and Android App

Using the DITAweb REST API support for a native DITA.xml.org app is possible. This could be developed by Mekon, or potentially a community member. For the latter, Mekon would provide access to the DITAweb API.

Additional features that would be possible from an app might include:

• offline reading of content

Any mobile app would be in addition to the responsive web site.

Ask the Expert

Webinars

Webinars are a popular way to engage with a community. A planned series of webinars should be planned. The OASIS DITA TC has run webinars in the past. The recordings of these webinars would be made available on YouTube.

Ideas for OASIS-related webinars include:

• With the forthcoming release of DITA 1.3 there is an opportunity for a number of related webinars that focus on different aspects of the specification.
• The release of DITA Adoption Committee best practices could be accompanied by webinars.
• Members of the DITA TC providing relevant case studies.