



**CHENNAI PORT TRUST**

**NO. EDP /154 / 2017 / F**

**BUDGETARY OFFER FOR REDESIGNING AND HOSTING OF CHENNAI PORT  
TRUST OFFICIAL WEBSITE FOR A PERIOD OF FIVE YEARS WITH ONE YEAR  
WARRANTY AND AMC FOR FOUR YEARS**

**WWW.CHENNAIPORT.GOV.IN**

**EDP DIVISION, FINANCE DEPARTMENT**

**CHENNAI PORT TRUST**

**All the offers should reach the Office of Sr.Dy. Director (EDP) not  
later than 1500 Hrs on 15.11.2017.**

**Sub: Budgetary Offer for Redesigning and Hosting of CHENNAI PORT TRUST Official WEBSITE for a period of Five years with one year Warranty and AMC for four years – Regarding.**

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Chennai Port Trust seeks to redesign the existing web site [www.chennaiport.gov.in](http://www.chennaiport.gov.in) as per the requirements as mentioned below and to host the redesigned website in ChPT owned server along with maintenance work.

From here onwards, Chennai Port Trust, will be referred to as “ChPT” and the firm that will be submitting its quote as per this document will be referred to as “Vendor”.

## **1. OBJECTIVES**

ChPT aims at redesigning its website,

- Adding more features and functionalities, making the site more acceptable to industry & making it on par with international standards.
- To follow principles of usability and universal design, so that people even with disabilities can perceive, understand, navigate, and interact with the web easily.
- To make the website fully responsive.
- 100% CMS based website.
- To make the website fully compliant with GIGW guidelines and certified by STQC.
- The scope of work also includes hosting the website in ChPT owned server.
- After warranty period, provide continuous maintenance of the website for a period of 4 years with the option to extend further.
- Handing over the full source codes, resolving site deployment and looks & feel issues and imparting training to ChPT IT team.

## **2. CHPT’s WEB SITE REQUIREMENTS**

### **2.1) TECHNICAL & FUNCTIONAL REQUIREMENTS**

#### **A. SCOPE OF WORK**

- The website should run on all browsers available such as Internet Explorer version 8+, Firefox, Opera, Safari, Chrome etc. without any format/alignment issue.
- It should also be compatible (responsive) with all mobile and tablet browsers/OS.
- The website should be mainly in English/Hindi language with partially static and partially dynamic page structure.

- The visitors must be able to view the content with ease without any requirement of font download. However, if there is a situation wherein browser might not support automatic font configuration then proper guidelines should be given for font configuration for such users.
- Professional Graphic Design of website should load quickly, navigation friendly and a pleasure to look at. Following points will be taken into consideration when designing and developing ChPT's website:
  - The logo of ChPT should be present on the homepage and visible at all times.
  - The main menus should be present on the homepage and visible at all times.
  - Colors and images should be chosen according to ChPT's requirements.
  - Place an image banner link to the "National Portal" in the Home Page and Pages belonging to National Portal should be loading in new browser window. The image banner will be given by ChPT.
  - Clear indications are to be given when a link leads out to a non-government website.
  - Identify and eliminate all the broken links in the web site.
  - Ensure that for all the acts published in the web site under the official notification, the complete title of the Act (as written in the official notification) is mentioned.
  - Implement a feedback/grievance redressal mechanism to collect feedbacks through online forms and to ensure timely response to feedback/ queries received through the website.
  - Complete information including title, size (playing time for audio/video), format, usage instructions and plugin to view the file is to be provided for downloadable material including documents.
  - The features "Search" and "Site Map" to be implemented.
  - In all the subsequent pages of the website, the following minimum content should be provided
    1. Self-explanatory title of the page
    2. Link to parent section
    3. Last reviewed/Updated.
  - Home page and every important entry page of website should display the last updated/ reviewed date.
  - A consistent page layout should be maintained throughout the website.
  - Alternate text is to be provided for all non-text elements (e.g. images).
  - All the web pages should be verified and corrected to see that, in the content implemented using mark-up languages, the elements have been used according to specification.
  - Functionality of content in all the pages should be operable through keyboard.
  - Focus should not be trapped in any component while navigating through keyboard only. And also the focus should be very clear.
  - Changing the setting of a component should not change the context unless the user has been informed of the same.
  - Metadata for page like title, keywords, description and language is appropriately included.
  - Mechanism should be in place to ensure that all outdated/expired contents like announcements, tender notices, recruitments etc. are removed from the website or moved to archive.
  - Support for visually impaired and otherwise disabled or challenged users, assistive technology like screen readers.
  - The website should comply with the Guidelines for Indian Government Websites (GIGW) [Refer WIRD order F. No. 211S/2015-TS. V(A) dated 9th September 2016]

## **B. SEO ACTIVITIES**

- Adding the blog feature to the site.
- Adding the Robots.txt and XML Sitemap files.
- Changing and correcting the URLs with underscores.
- Conduct an Off-Page and on-Page Search Engine Optimization.
- Domain specific Keyword Optimization to increase the search rankings.
- Fixing all the missing IMAGE ALT attributes in the site pages.
- Make the site load faster in mobile and desktop/laptop devices. The ideal page load speed for the website must be less than 1.5 seconds.
- Make the site monitored by Google Analytics & Google Webmaster Tool.
- Make the site SSL Secure (HTTPS).
- Optimizing the web site for viewing correctly in mobile platforms.
- Placing a Custom 404 Page for the web site.

## **C. SEARCH**

Citizen and portal users should be able to search within portal. The portal should provide metadata and “full text search” based on search functionality. For providing search functionality the Portal should comply within defined processes for defining metadata, managing metadata schema changes and master data changes. Search must allow the archived content to be included (or excluded). Advanced search facility based on multiple filters should be provided. Search option should be bilingual.

## **D. CONTENT MANAGEMENT SYSTEM**

- The web site is to be managed by a Content Management System which should facilitate the creation, management, publishing, presentation of contents effectively and displaying it on a user interface.
- User shall able to upload the Content such as Photo, News, Contact detail etc. on website.
- Contents must be in Unicode format.
- Content Authoring, Publishing, Delivery, Content Storage Management, Content exit and Archival should have preconfigured generic templates and workflows for the content management
- Distributed authorship of portal content across divisions.
- Separation of content from presentation, which allows authors to focus on content rather than web design.
- Management of revision, approval, publishing and archiving processes in an easy and automated manner.
- Centralized template management for consistency within portal. Content repurposing for different audiences and different interfaces.

- Facilitate metadata generation and management which enables effective content discovery.
- Facilitate storage management of all types of content; text graphic, audio, video etc. In context contribution, purview, updates and approvals.
- Homepage: On the home page, provision of Addition/ deletion/ updating of menus and submenus.
- Administrator privileges for website administrators: Should be able to assign module wise privileges and roles for the website administrators.
- Careers - Online job application form, Screening, and downloading of Application forms in excel format — Online forms should be customizable depending on the post for which vacancies are advertised.
- Dynamic modules to be integrated on the Homepage - Events / News Updates / Newsletter /Announcements/ Blog etc.
- Images and Videos: Provision to Add photos and videos related to the events featured in the blog.
- Editing of Inner pages: All the pages should be editable and provision to upload the downloadable contents should be provided. Size of the downloadable files should be shown. Last updated date should be automatically updated on all the pages related to RTI, Tenders, and Recruitment etc.
- Tenders— Provision to publish tender notifications and uploading supporting documents (images, documents and pdf files).
- Menu & Submenu editing: Provision for adding and editing all the main menus and submenus should be integrated in CMS.
- Header image updation: We should be able to change the header image of every page with option of disabling the header image.
- When a page/image is removed/inactivated from the website, thereafter the same should not be visible in any search engines.
- Monitoring and Analytics tool integration: Provision to view online visitors, number of hits to each page of the website, repeat and unique visitors, navigation paths, visitor's countries, integration of all pager with analytical tools, etc. should be made and the same should be integrated with the CMS.
- Creation of inner pages with submenus: Multiple templates to create new webpages with at least 3-4 layouts (Single column, 2 columns etc.)

## **E. SECURITY**

The successful Vendor should provide for the following security features:

- Protection against defacement, hacking.
- Design should incorporate security features to protect the site from Session Hijacking, SQL Injection, Cross scripting, Denial of Service etc. Documentation of Source Code along with Administration/User Manuals needs to be submitted. Any vulnerability found during the security audit, Vendor has to close the same accordingly.

## F. SERVER RELATED

- ChPT has in-house server with sufficient capacity to host the website. In addition, ChPT also has Red Hat Enterprise Linux (RHEL) that may have to be installed in the server.
- The website has to successfully run in the in-house server.
- The mail server also has to be configured and mails have to be properly migrated into the new mail server.
- The technology proposed by the successful Vendor has to make use of the above resources without having to purchase additional software by ChPT.

## G. OTHER TECHNICAL REQUIREMENTS

- **All the existing facilities in the website are to be migrated to the new framework** and additional features, if any, the vendor can offer such as development of a blog / e-governance portal / Intranet application can be furnished.
- Redesigned site map is to be developed in consultation with ChPT.
- Features should be made available for periodic updates of data in the existing webpages through shell scripts 2 to 3 nos.
- CAPTCHA should be present for web pages with form field such as feedback form, registration form etc.
- Logging to be enabled for Web Server / DB Server. Password should not be hardcoded in any website configuration files or stored in plain text.
- Passwords should be properly hashed. The pages should be printer friendly i.e. all the pages shall be displayed and printed upon demand by user.
- To improve the experience of the Web on mobile devices and other handheld devices like iPad, tablets etc. the website needs to be developed with "One Web" concept. One Web means making, as far as is reasonable, the same information and services available to users irrespective of the device they are using.
- Registration of domain name: The domain has already been registered for ChPT.
- The successful Vendor should host and maintain the in house web server at ChPT's data center on Linux platform. Hardware infrastructure will be provided by ChPT.
- During the support and maintenance period of 5 years, the successful Vendor should make necessary changes in the website as and when required without extra AMC charges.
- Detailed administration manual should be properly developed and an agreement (SLA) for 5 years support (mentioning all the terms and conditions given in the document) should be signed before releasing the first payment.

## **H. PROJECT COMPLETION:**

The project will be treated as "complete" only if: STQC issues compliance certificate as per GIGW while handover to the ChPT is completed. Final Source code along with Security Audit Certificate of the project along with detailed documentation and IPR is to be transferred to ChPT.

Copyright: Any software, data, awards, certificates, patent, etc. shall be absolute property of ChPT. The Successful Vendor will transfer to ChPT all Intellectual Property Rights in the Software developed. The source code supplied to ChPT shall at all times be a complete, accurate, and up-to-date copy corresponding exactly to the current production release of the software.

## **2.2) TECHNICAL SPECIFICATIONS**

### ➤ Design:

Website should be developed on open source technology (Front-end & Back-end). Vendor should use CSS3 based Responsive Web Design approach, Clear and appropriate graphics and W3C compatible coding style while designing the web pages. The website should also be fully complied with GIGW Guidelines (After the development of the website, a detailed report should be submitted along with proof).

### ➤ Technology:

Vendor should provide high-quality and new technology content solutions for the website. The web site should be designed using HTML 5 or higher Transitional and also adheres to Web Content Accessibility Guidelines (WCAG) 2.0 laid down by the World Wide Web Consortium (W3C) and be social media enabled. Website loading speed optimization needs to be done by the successful Vendor. Back end performance optimization like DB structure, query optimization to be done to enhance user experience in terms of fast load times and good mobile experience.

## **2.3) DELIVERABLES OF WEBSITE:**

A few of the deliverables of website are enlisted below, which might be updated, modified by CHPT during project implementation, if required.

- Successful Vendor should submit a detailed project plan document in kickoff meeting of the project which will include but not limited to technical specifications of website, functional specifications of website, project lifecycle details, workflow, links, navigation, architecture, structure of website and three design options (home page & inner pages), methodology of 24\*7 support during the maintenance & support period of 5 years etc.
- The amount mentioned in the financial/price bid should also include charges for enhancement / change requests / new feature development charges during the support and maintenance period of three years.

- The site should include following navigation strategies:
  - I. Menu system as primary navigation method of the site that is always displayed on each page.
  - II. Each section must have a main page where visitors can navigate to the sub items under the sections, but still be able to get back on any of the other main section home pages.
  - III. Overall design concept for the website should be optimized in-terms of identity, accessibility, usability and content distribution.
  - IV. Separate login for Super Administrator to view online visitors, number of hits to website, repeat and unique visitors, navigation paths, visitor's countries, etc.
  
- In addition to the deliverables listed above, all the deliverables mentioned in different sections of this document like managing CHPT's in-house server, obtaining security certificate, etc. should also be considered as deliverables.

➤ Sl. No.	Description	Amount	Tax	Amount including Tax
<b>MANDATORY ITEMS</b>				
1	Cost for redesigning of website with 1 year warranty & 4 year maintenance			
2	Cost for configuration of webserver & hosting the website in ChPT owned server along with necessary support for 1+4 years [Hardware (Server/VM) ,OS for installation will be provided by ChPT]			
3	STQC Certification			
	<b>TOTAL AMOUNT INCLUDING TAXES</b>			

**Statutory Requirement:**

PAN, TIN, GSTN, Certification of Registration of Companies.

You are therefore requested to submit your Budgetary Offer for **Redesigning and Hosting of CHENNAI PORT TRUST Official WEBSITE for a period of Five years with one year Warranty and AMC for four years** to the Sr. Deputy Director (EDP), IVth Floor, Centenary Building Chennai Port Trust, 1, Rajaji Salai, Chennai – 600 001 **on or before 15.11.2017 @ 1500Hrs.**

**Sr. Dy. Director - EDP**