



DEPARTMENT OF INFORMATION TECHNOLOGY

GOVERNMENT OF GOA

TECHNICAL SPECIFICATIONS FOR GOA

GOVERNMENT WEBSITES

Version 1.0

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## 1. Introduction

### Scope & Objective

This document recommends technical specifications for Goa Government websites for guidance towards development of sharable, accessible departmental services. The Specifications aim to assist the departments in ensuring that their websites conform to a consistently high standard. Use of Open Standard based technologies for the development of Websites is important to interoperability and accessibility of Websites. Content Management System manages set of activities during the content life cycle. Departments are advised to follow these standards for developing their Web Applications. The departments may also refer to World Wide Web Consortium (W3C) for detailed standards. However the Website design should follow the guidelines mentioned by Government of India at <http://web.guidelines.gov.in>

### Feedback and Suggestions

Feedback and suggestions on the Specifications are welcome.

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## 2. Development

Use of open standard based tools and technologies for the development of websites, Software as well as content is very important to interoperability and accessibility of websites. Worldwide web Consortium (W3C) is an international body working towards defining standards in web technologies and formats for publishing contents on the web.

2.1 Goa Government websites should validate to following technologies for published grammars :

- HTML 4.01
- XHTML 1.0
- XML 1.0

2.2 The Departments must host Websites using Content Management System (CMS). A CMS allows documents to be organized systematically and in an efficient manner. Security guidelines within the areas of a CMS allows flexibility and secure handling of confidential data. In order to standardize the Web hosting, Drupal which is a free and Open Source Content Management System can be used for creation of necessary infrastructure for hosting departmental Website at State Data Centre.

2.3 The Website can be developed under Windows or Linux Platform

### Windows Platform

ASP,ASP.NET 1.1/2.0 as Language

MS SQL server, Oracle 10g as database

### Linux Platform

PHP 5 as Scripting Language

My SQL 4.0.20 as database

2.4 Cascading Style Sheets (CSS) is a style sheet language used to describe the presentation of the document written in a markup language. Its most



common application is to style the web pages written in HTML and XHTML. Goa Government websites must use CSS as much as possible to control layouts/ styles.

- 2.5 Server side scripting languages should be preferred over client side since client side scripting may face issues of the browser in compatibility, scripts being turned off by browsers, security, etc.
- 2.6 All open Forms like registration/Feedback forms should have CAPTCHA implementation.
- 2.7 There should be one common file for database connection entries, the same should be used for all database connections.
- 2.8 The Passwords in the database should be stored with salted MD5 encryption. All Admin pages should have proper Session Management.
- 2.9 Government websites shall have lot of information in the form of documents such as Acts, Rules, Schemes, Gazettes, Forms, Circulars, Notification. Accessibility and usability of these documents by all citizens is as important as that of the entire website. Departments must either use HTML format or any other format that makes the document accessible.
- 2.10 Websites should be validated and tested with automatic tools and human review.
- 2.11 Department must formulate a security policy to address various security issues.



### 3. Website Hosting

The fundamental purpose of Government website is to deliver the information and services to the citizens and other stakeholders using the medium of internet.

- 3.1 Goa Government websites must be accessible to the public in a fast and secure manner on 24X7 bases. It is important that the web hosting service provider (HSP) for a Government department be chosen with extreme caution and care.
- 3.2 The HSP must perform regular backups of the websites.
- 3.3 The web HSP must also use devices such as firewall and intrusion prevention system to make the website more secure.

#### Procedure for Website Deployment at Goa State Data Center

- Step 1:** Submission of Registration Form for Website / Application Software by concerned Department to DOIT. Registration Form is enclosed as Annexure A.
- Step 2:** The Data Center Operation (DCO) Team will design and plan for deployment and the same will be reported to DOIT.
- Step 3:** Provision of any additional IT Infrastructure (if required), the concerned Department will have to make necessary arrangement.
- Step 4:** The Data Center Operation Team will install and configure the Hardware & Software as per requirement of Website/ Application Software.
- Step 5:** The Website / Application Software will be deployed on the Staging Server by the Vendor (while deploying the screen shots of each step should be taken for documentation purpose).
- Step 6:** Preparation of Reports by the Website/Application Software Vendor which includes following sections:



**Section 1:** Installation Report (deployed on Staging Server) with the screen shots and brief description.

**Section 2:** Database details (table space name, tables, user name, password and data size).

**Section 3:** If any ports need to be opened between DMZ and MZ also mentioned the same in the report.

**Section 4:** Any issues and problems faced during installation and efforts made in removal of the same, any comments.

**Step 7:** Conductivity Security Audit of Website /Application Software on the Staging Server by the Cert-In Empanelled Information Security Auditing Organizations.

**Step 8:** On successful clearance of Security Audit, the Website /Application Software will be deployed on the Production Server by the Website/Application Software Vendor and DCO Team and detailed report will be sent to DOIT.



#### 4. Audit

Auditing is the formal examination and review of actions taken by system users. Audits may be conducted to ensure confidentiality, integrity and availability, by reviewing and maintaining audit logs. Security audits are extremely important for any enterprise network, as audit logs may provide an indication that a security breach has occurred.

Application developers should however be sensitive about security aspects, as a lot of security threats arise due to vulnerability of application software code. These application driven attacks sometimes turn out to be quite fatal. Best practices to follow while developing web applications using various technologies are available on CERT-IN website (<http://www.cert-in.org.in>). CERT-IN has empanelled a number of agencies to conduct the security audit of Websites/Applications.

Each Website / application must undergo a security audit from empanelled agencies with CERT-IN and clear the same, prior to hosting at the State Data Centre.



	<b>Technical Specifications for Goa Government Websites</b>	<b>DOIT</b>
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## Annexure A

### Registration Form

1.	Type of Application	<input type="checkbox"/> Department Website <input type="checkbox"/> Department. Application
2.	Title of the Web Site / Application	
3.	Name of the Department / Organization	
4.	Hosting Platform	
5.	Interactive Components	<input type="checkbox"/> ASP <input type="checkbox"/> ASP 1.1 <input type="checkbox"/> ASP 2.0 <input type="checkbox"/> JSP <input type="checkbox"/> None Any Other .....
6.	Database support needed	<input type="checkbox"/> Yes <input type="checkbox"/> No  If yes, Name of DBMS
7.	Site developed by:(Vendor/ Organization)	
8.	Size of the Site / Application: (in MB)	
9.	Size of the Database: (in MB)	
10.	Site is Presently temporarily located at	http://
11.	Main /Opening File	Welcome / login page .....
12.	Announcement Date	

**Date:**

**Signature**