

# Guidelines for Developing Sri Lanka Government Websites

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## **Guidelines for Developing Sri Lanka Government Websites**

#### Introduction

A citizen-centric web presence enables government organisations to provide services directly to its citizens. As the apex Government ICT institution in the country, the Information and Communication Technology Agency of Sri Lanka (ICTA) has been implementing ICT-related Government policy and action plans as part of its mandate since its inception.

ICTA initially developed standards for government websites of Sri Lanka in 2013 to ensure all government websites are of high standard. This document is an update to the same and includes the latest mandatory and recommended standards for the development of a government website. It is presented in a user-friendly manner, and targets the three main stakeholders of a website development project, namely:

- Senior Officials and Decision Makers of Government Organizations
- Web Developers
- Webmasters (designated person/team responsible for the maintenance of a website and keeping its content relevant and up-to-date.)

#### Need for Government Web Standards and Guidelines

Today, where Information and Communication Technology drives the world at large, it is a critical need for governments around the globe to utilize digital technologies to extend their services to the public in an effective, efficient and productive manner while ensuring that these services are accessible to all citizens without prejudice to any segment of the society.

A website has become a very common and mandatory requirement for any organization, government or otherwise. A government organization should use a website not only to disseminate information to the public on their services but also as an interface to efficiently provide and facilitate services (including financial transactions) to the public.

While many Government organizations in Sri Lanka already have operating websites, a substantial number of these require updates and enhancements. This document describes a comprehensive set of standards recommended by ICTA for developing, implementing, maintaining, updating and managing government websites.

#### **Compliance with Web Standards**

All Government Organizations that currently have or plan to develop a website shall comply with the standards defined in this document. A web compliance checklist has been developed and can be accessed via Annexure E3. Assessment of compliance should be done based on the checklist before publishing the website.



#### Section 1 - Requirements of a Government Website

Target Audience         Senior officials and decision makers of Government Organizations	
Synopsis of Content	This section provides a high-level understanding of why a Government
	Organization needs to have a website and how to build a good website.

#### **Executive Summary**

This document assists you in ensuring your website serves the public and your organization in the best possible manner.

Your website represents your organisation in cyberspace. Many citizens use the Internet to obtain information and transact their business with your organisation online. Therefore, every government organisation needs a website to provide information about your organisation and your services. You may set up one or more types of websites (refer 1.4 Types of Websites below), depending on the information provided, types of interaction and the target audience. The features of a good website are briefly described, along with the selection of a domain name and hosting. We explain how to make your website more usable for every user regardless of their language proficiency or special needs.

This document covers the creation and management of the contents of your site including legal aspects such as privacy, copyright and data protection and security. Finally, we outline procurement procedures to hire a service provider and discuss methods to build awareness about the website among citizens through promotions.

#### **1.1 What is a website?**

A website is a set of pages on the internet that has been published by a person, company, or an organization, which contains text, pictures and sometimes videos and sound created to achieve the objectives of the entity to which it belongs.

A Government organization's website represents the organization's online presence and is as important as your physical offices that serve the public as online usage increases daily. A user should therefore be able to access all information and services offered at your physical office through your website.

## 1.2 Why does a Government Organization need a Website?

Mobile penetration and internet penetration in the country is considerable and is increasing rapidly with more and more people owning computers, smartphones and other devices. Nowadays, more and more citizens tend to use these devices to go online to find information, communicate, shop online etc. Therefore, they are more likely to look for information on Government Services online than picking up a phone and calling or making a visit to an Office for information and services as it is much cheaper and quicker.

From the Government Organization's point of view, it is much easier and more efficient to provide information and services online than through physical offices and will lead to digitization of internal processes which will increase efficiency and accountability of the organization.

Communication through a Government website is also a first line of defence in an emergency situation where information can be disseminated fast and effectively to citizens helping reduce



panic and bring control to such a situation (natural disasters, pandemic situations, security threats etc.).

## **1.3** What are the Objectives of a Website?

- Inform citizens of the functions and services carried out by the organization.
- Provide accurate, relevant, current and easily accessible content.
- Allow citizens to interact with your organization obtain information, services, build relationships and make payments without physically travelling to the office.
- To give equal access to information to all communities in the country (the website should be available in all 3 languages Sinhala, Tamil, and English).

#### **1.4 Types of Websites**

- Informational website These are created for the sole purpose of providing information online. This is the most basic type of website an organization could have.
- Interactive websites- These websites have all relevant information and allows users to interact with the organization through the website.
- Transactional websites- These websites apart from being informative and interactive, allows users to conduct transactions through a financial institutions website and facilitate transactions.
- System of Record websites These websites maintain the official version of data.

#### 1.5 What makes a Good Website?

#### i. Well-designed and functional

Your website reflects your organisation and your services on-line. It should therefore be professional and visually appealing. All functions should work well.

#### ii. Easy to use

Users of the website are always in a hurry to get the information- therefore User Experience (UX) plays a key role in enhancing user understanding and making them stay on the website for longer. This includes obvious, logical navigation with a clear hierarchy.

#### iii. Optimized for Mobile

Mobile devices (smartphones) are used extensively by our citizens. Most people use a smartphone to access the site. Therefore, it is vital that the website works well with popular mobile devices and software versions, including older and low-cost ones. Optimizing for mobile platforms will improve the user experience and accessibility.

#### iv. Has the right content

The main function of the website is to convey relevant content to the users and assist them to solve their problems with regards to the information and services provided by your organization. The content should be simple and clear in a language that will be easy to understand by any user. Also, the content should be relevant and updated periodically through a structured mechanism that guarantees accountability as having a website with outdated information can be worse than not having a website as it will mislead the public.



#### v. Contact and location information provided

Engagement of the users with the organization should be encouraged and multiple points of contact should be offered; phone, email, social media and if required an easy-to-use contact form. Locations of Offices through points in Google maps is also a positive.

#### vi. Has clear calls to action

Based on the type of website that is developed for the organization, users should be encouraged to take specific action; even informative sites should encourage users to read and share articles, follow the organization on social media, join mailing lists etc.

#### vii. Optimized for Search and social media

A website developed ensuring the best practices detailed in the above points are adhered to, needs to have more traffic to the site to be more useful. Search Engine Optimization (SEO) is the process of improving the quality and quantity of website traffic from search engines targeting unpaid traffic rather than paid traffic. Making it easier for users to share the content on social media can also drive large volumes of traffic to the website.

#### **1.6 Domain Names and Hosting**

The Domain Name System (DNS) helps people to identify and find a website, e-mail address, etc. Every website has a name - called a domain name. For example, the Government Web Portal has the domain name www.gov.lk. Websites and web pages may also be identified by their URL, which usually begins with https:// (e.g., https://www.pubad.gov.lk - Ministry of Public Administration)

Sri Lankan Government websites should be in the domain **gov.lk**, and should be in accordance with the e-Government Policy. A brief guide to choosing your domain name is in Annexure C.

To register a gov.lk domain for your organisation, please follow the instructions at <u>https://www.icta.lk/digitizing-gov/gov-lk-domain-registration/</u>.

It is recommended that all Government websites be hosted on the Lanka Government Cloud (LGC). Justification and prior approval should be obtained from ICTA if the organization plans to host a website on a different platform. More information on LGC can be obtained at <u>www.lgc.gov.lk</u>.

#### 1.7 Language

All content on all government websites should be in all three languages: Sinhala, Tamil and English. They should also be Unicode compliant. If the original content is created in one language, the content in the other two languages should also be written/translated and uploaded within seven (7) days. Important and critical content should be made available in all three languages simultaneously.

#### 1.8 Usability

The ease with which users can interact with a website is its usability. For example, some sites are visually effective but difficult to navigate, which makes it difficult for users to find the information they are looking for. Users should be able to grasp the functioning of the site immediately after scanning the home page within a few seconds at most.



## 1.9 Accessibility

Web accessibility refers to making available the web content for a wide range of users including those who are differently abled and have special needs. A considerable portion of the population have special needs such as impaired vision and hearing, motor difficulties and cognitive disabilities, among others. A public website should be designed and implemented considering the accessibility needs of everyone. Especially, since a large number of people are accessing the websites using mobile devices, accessibility should include facilitating all types of mobile device (from low end to sophisticated high end devices) users as well.

## **1.10 Content Management**

A Government Organization's website should be complete, accurate and current. Therefore, it is vital that a quality control process be followed when reviewing and approving the content that will be published on the website. Following a defined process standard will assist in keeping close control over the content and will ensure a citizens' friendly website is developed from concept to publication.

Each organization should appoint a **Content Management Team** (**CMT**) for the development, content management, translation and maintenance of the website. It is headed by the Chief Digital Information Officer (CDIO), who would be a second level head of the Organization. The CMT should take full responsibility for keeping the website active, up-to-date and relevant with all current information.

#### **Composition of the Content Management Team (CMT)**

- Chief Digital Information Officer Chairman of the CMT
- Web Master
- Heads of each Division/ Department or their appointed representative
- A representative from the Web Developer
- Any other officials as required

## **Content Writer and Content Translators**

It is recommended that one or more content writers and translators be used to create the content of the website. The organization may either procure the services of content writers and translators as part of the website development contract or procure their services separately where the writer will be directly responsible to the organization. In either case, they will work in close collaboration with the organization to obtain information and create content in a suitable format.

#### **1.11 Legal Aspects**

#### i. **Privacy Policy**

A Privacy Policy is a statement or a legal document that states how a website collects, handles and processes data of its users and visitors. It explicitly describes the extent in which the data given by the users and visitors will be managed, kept confidential and used in line with the applicable laws and regulations including data protection laws. A sample privacy policy is given in Annexure D1.



#### ii. Right to use material, images, libraries, etc. in your website

It is also important to adhere to copyright law when using content from third parties, e.g., images obtained from the Web. If any material is obtained from external sources, you should ensure that you either have the right to use it freely (e.g., it is copyright-free or has an appropriate Creative Commons licence), or you have obtained a licence or permission to use it. Breach of intellectual property rights will make your website lose credibility and can result in a legal risk.

If you use content from other government organisations (e.g., the Sri Lanka National Emblem), please make sure you have the right to use them.

#### iii. Copyright Policy and Copyright Notice

The content of your website (including text, images, data, etc.) are your property, and should be protected by copyright. Every website should include a statement identifying the copyright owner, and what use they may make of the content. Providing such a statement gives notice to visitors that your website belongs to the organization and that they cannot copy the content without your permission. A sample copyright notice is at Annexure D2.

#### iv. **Disclaimer**

A website disclaimer is a legal notice that limits the liabilities that a website owner might face involving the contents of the respective website. The disclaimer should be placed in the footer of all Government websites.

e.g., If and when the website involves any e-payment features where electronic transactions are involved, appropriate disclaimers, worded in consultation with the involved agencies (bank, payment gateway service provider etc.) and the legal department of the respective Government Organization should be placed on the website.

A sample disclaimer notice can be viewed at Annexure D3.

#### **1.12 Security of the Website**

Web security is important to keep hackers and cyber-thieves from accessing sensitive information or maliciously modifying the site. Without web security measures organizations risk the spread and escalation of malware, attacks on other websites, networks and other IT infrastructure.

The <u>Technical Guidelines for Web Application Security</u> developed by the Sri Lanka Computer Emergency Readiness Team (SLCERT) should be followed in the design, development, maintenance and decommissioning of the website.

All government websites should meet the following security guidelines:

- The website content management tool (CMS), database, operating system and web server platform should be kept up-to-date and should be equipped with the latest security patches.
- Web Application Security Risks in <u>owasp.org</u> should be taken into consideration when designing and developing the website.
- All input and output should be validated.
- All files, including uploads, should be scanned for malware.
- Ensure "HTTPS" is enabled on the web server.



- Developers should limit the usage of third-party components.
- Vulnerability Assessment and Penetration Tests (VAPTs) should be carried out by Sri Lanka CERT prior to the production release, and annually thereafter.
- Access credentials to the website CMS or back end should be given to authorized users only. Sharing credentials with unauthorized users should be strictly prohibited.
- The application, content and data should be backed-up regularly.
- At the decommissioning stage, the website should be securely disposed of to ensure that its data and other information assets cannot be accessed or recovered by unauthorized individuals.

More information is available in the SLCERT <u>Website Security Guidelines for Government</u> <u>Organizations</u>.

#### **1.13 Website Procurement Procedure**

The Information and Communication Technology Agency (ICTA) suggests that a Quality- Cost Based Selection (QCBS) method be used within the Government Procurement Guidelines when procuring large websites. Smaller websites may be procured using National Shopping (NS). Also, for website projects with a value less than Rs. 2 million Government Organizations can adhere to "Public Finance Circular No 03/202" issued on 9th October 2020 by Ministry of Finance, where sourcing should be done only from the startups registered with ICTA and listed in the <u>Startup Sri</u> Lanka website.

#### i. Terms of Reference

Two sample ToRs developed by ICTA is included in Annexures E1 & E2 for

- a) when the project budget is below Rs. 2,000,000 where the services of a Start-up IT company could be acquired for the development of the website and
- b) for larger value procurements where the website is more complex and a more experienced web-development company is required for the project.

It is recommended to include a minimum of 2-year website maintenance period with the service provider in the contracts. This is to ensure the general maintenance of the website, upkeeping and any critical Change Requests (CRs) are being carried out within this period.

It is mandatory to include the following clauses in the ToR of the web developer.

- a) A clause to ensure web development and hosting is in accordance with the Technical Guide for Web-Application Security <u>https://cert.gov.lk/documents/Draft%20Web%20Application%20Security%20Guideli</u> <u>nes%20for%20Government%20Organizations.pdf</u> issued by SLCERT
- b) A clause to ensure adherence to the Sri Lanka Government Web Standards- 2022 (this document).
- c) The Compliance Checklist (Ref. Annexure E3)



## ii. Compliance Checklist

It is recommended that a checklist be included in the tender documents. A sample checklist is at Annexure E3

## iii. Review Committee

The Review Committee (Technical Evaluation Committee) should be set up to review the deliverables of the Web Developer as per the Contract. This committee may obtain consultations from ICTA as and when required.

The Review committee may consist of following members:

- 1. Chief Digital Information Officer (CDIO)
- 2. Webmaster
- 3. IT Officers in the Organization
- 4. An academic from a State University who is qualified in IT

#### **1.14 Promoting Government websites**

Once a website is developed it is vital that it is promoted among the public and awareness is created. Hence it is mandatory that the Government Organization carry the URL of the website in all hard copy communications (letterheads etc.), all social media channels of the organization, business cards and email signatures. An advertising campaign on traditional and digital media may also be carried out as required.

The site should also be included in the government web portal and steps should be taken to ensure that it appears at or near the top of search engine results for expected queries by citizens.



## Section 2- Technical Standards

Target Audience	Web Developers/ Companies responsible for the development of the	
	website	
Synopsis of Content	This section gives the standards that need to be adhered when developing	
a Government website by the web developer to ensure technical sta		
	are met at the time of website design and development and also during	
	its maintenance.	

## **Executive Summary**

Before setting up a website, a suitable information architecture should be identified, depending on the complexity of the website. The website should not only be easy-to-use by a typical user, but should also be accessible by persons with special needs. In websites meant for citizens, the entire website should be in all three languages. Unless the website is very simple and is not expected to change, a content management system should be used. All the information and functions needed to carry out the work of the organisation should be available on the site, including primary, secondary and tertiary content. The site should comply with the SLCERT web application security guidelines and should be tested by SLCERT before commissioning and annually thereafter. The site should meet copyright, privacy and other legal requirements.

In addition to the information below, please study the detailed requirements in the annexures.

# **2.1.** Information Architecture

One of the first tasks in designing a website is to identify an information architecture. Depending on the complexity of the requirements, you may use a static website, a content management system (CMS) such as WordPress, Drupal or Joomla, or a static-site generator such as Hugo, Jekyll, or Docusauras, or a web application connecting to a database. The system may also be designed as a set of services.

The website may appear to the user as a single scrollable page (only for simple sites), or be rendered on the server. The back end may also be set up as a service-oriented architecture, serverless architecture, etc.

All websites should be backed up regularly. The backup services of the Lanka Government Cloud may be utilised. In addition, it's recommended that backups of the entire website and its databases be taken quarterly and stored in a secure remote (off-site) server for the purpose of disaster recovery. All backups should be tested regularly, by restoring to a test server. Access to these backups will be restricted to only authorized personnel.

Please refer to Annexure F for more information, including components of an information architecture.

# **2.2.** Technical guidelines

#### a. Documentation

It is recommended to maintain proper documentation with the details of backup procedure/locations, SSL certificate renewal periods. Further it should consist of a



deployment guide for the maintenance purpose by a third party (after the contract period of the vendor).

#### b. SSL/HTTPS

You may obtain a free SSL certificate through Let's Encrypt via <u>https://certbot.eff.org/instructions</u> Let's Encrypt is a free, automated, and open certificate authority by the non-profit Internet Security Research Group.

#### c. Web Analytics

Website access analytics provide valuable insight about the user behaviour and the engagement levels. It is recommended to incorporate web analytics through a service like Google Analytics, Mix panel or a free and opensource solution like Matomo.

#### d. Monitoring

The website should be monitored through automated means to ensure the respective personnel and administrators are promptly alerted if there's a downtime of the website

#### e. Development Tools, Frameworks and Libraries

The web developers should make every effort to use opensource tools, technologies and libraries for the implementation of the website, unless otherwise there's a compelling reason to use any proprietary (licenced) software. All versions of software components should be the latest stable versions available at the time of the production launch. And the web developer will be required to upgrade the versions to the latest stable versions within the support and maintenance period.

## 2.3. Usability and Accessibility Standards

Web **accessibility** refers to making available the web content for a wide range of users including those who are differently-abled and have special needs. There is a considerable portion in the population with disabilities such as impaired vision and hearing, motor difficulties and cognitive disabilities, among others. A public website should be designed and implemented considering the accessibility needs of everyone. Especially, since a large number of people are accessing the websites using mobile devices, accessibility should include facilitating mobile device (from low end to sophisticated high end devices) users as well.

The ease with which users can interact with a website is its **Usability**. For example, some sites are visually stunning but difficult to navigate, which makes it difficult for users to find the information they are looking for. People should be able to grasp the functioning of the site immediately after scanning the home page within a few seconds at most.

#### Common web accessibility issues;

- Website content being too heavy making it difficult to be viewed on low end mobile phones
- Poor colour contrast that makes it difficult to read text
- Poor support for viewing on mobile devices such as smartphones and tablets
- Font sizes being too small and non-adaptable making it difficult to read on some screens
- Lack of support for screen readers
- Incomplete captions and audio descriptions



#### Exemptions to following accessibility standards

While accessibility standards are imperative for successful information dissemination and functioning of public web sites, there are certain situations where you may be exempted from following them fully.

All essential public websites that serve a critical purpose should follow accessibility standards. For example, an elections department website that shall be accessible by all citizens of the country should adhere to accessibility standards to the fullest whereas a public school's website may not be required to fully comply with accessibility standards.

Each organization should make a careful assessment on the extent of accessibility standards that should be followed by their website considering the following factors;

- Who is the audience for the website?
- How critical or mandatory the services offered by the website are to the intended audience?
- Is the website specifically designed for people with disabilities?

The respective organization may judge the extent to which their website should follow accessibility standards based upon the above factors. However, it is strongly recommended that every effort be taken to make the website accessible to everyone. Lack of time or expertise should not be considered as valid reasons to not implement accessibility standards for critical websites.

In cases where implementing accessibility standards in local languages may not be practical due to technical infeasibilities (ex. screen readers may support English, but not local languages), partial implementation of standards may be carried out with additional support to overcome issues faced by local language users.

The best practices for usability standards conformity and the best practices and tests for Accessibility Standards Conformity is in Annexure B1

A detailed checklist to ensure accessibility and usability of websites is also appended under Annexure B2

## 2.4. Language Standards

It is mandatory that Government organizations ensure that the content on their websites is available in Sinhala, Tamil and English and is Unicode compliant.

The welcome page/home page in Government organizations' websites should have language selection buttons in the order Sinhala, English and Tamil placed on the right-hand top corner of the website in all pages.

Downloads such as Forms, Acts and Circulars should be in all three languages. When the original content is created in one language, the content in the other two languages should also be written/translated and uploaded within 7 days. During incidents of national significance and during emergencies/pandemics content should be made available in all three languages simultaneously. A high quality (human or machine assisted only) translation mechanism should be available for each organization, to minimize undue delay. Direct machine translations should not be used, without a human review.



Terms in local languages should be consistent across Government organizations. Glossaries published by the Department of Official Languages and by ICTA may be referred to when seeking appropriate words for translation.

The language used should be clear, precise, and easy to understand to minimize ambiguity for users and to alleviate possible issues, allegations or even litigation for the Government organization. The writing style in the local language sections of Government organizations' websites should be simple to facilitate local language screen readers and thereby to facilitate accessibility. In this respect, the use of Sinhala conjunct letters and touching letters may be avoided unless necessary.

If assistance is necessary for changing the language of the device to Sinhala or Tamil, then help may be sought through referring to www.language.lk or from the Local Language Help Centre https://helpcentre.lk , 011-7024957

A proper folder structure should be maintained. Pages in each language may be structured as given below:

- Sinhala pages

- Tamil pages

- a. www.deptname.gov.lk/si/
- b. www.deptname.gov.lk/ta/
- c. www.deptname.gov.lk/en/ English pages

# 2.5. Content Management

It is the role of the Web Developer to develop a comprehensive website in alignment with the Government policies (Reference- link not found in ICTA website) and these standards.

The Developer should nominate a representative to the Content Management Team (CMT) and work closely with the Organization to achieve the objectives of the website.

The Web Developer will organize relevant training programmes for the Content Management Team (CMT) to enable them to update the website with current information.

It is recommended that the Web Developer be contracted to maintain the technical aspects of the website and undertake any feature additions, attend to failures and bug fixes etc. within the contract period signed.

# 2.6. Standards and Guidelines for Minimum Information Provision

These guidelines and standards are geared toward ensuring the provision of a consistent level of information across all government websites to facilitate access to government information and services for all while ensuring transparency of operations and legal/regulatory compliance.

#### i. Types of Information in the Public Domain

The content of a Government website is of high importance as the citizens rely heavily upon a Government website to access authentic and up-to-date information. Hence a government website ought to have the following kinds of contents:

The citizens can trust online information and services when the content provided in a government website is authentic, up-to date and consistent. Hence a government website should have the following types of information;



#### a. Primary Content

Primary content is the original content that is sought by the target audience of the website, which could be citizens, businesses or other Government Departments or even Government employees.

#### b. Secondary Content

Secondary content is generated from the assortment, packaging of primary content to suit the requirement of different audiences, events and occasions.

c. Tertiary Content

Information about the "Primary" and "Secondary" content forms a part of the tertiary content. This shall include sections such as; About the Site, Online Help, Terms and Conditions and Frequently Asked Questions (FAQ).

A detailed description of the standards and guidelines on the provision of minimum information on a government website is annexed- Ref. Annexure G

# 2.7. Security

It is mandatory that all Government websites be developed and hosted in accordance with the <u>Technical Guidelines for Web Application Security</u> developed by the Sri Lanka Computer Emergency Readiness Team (SLCERT).



#### **Section 3 - Operational Standards**

Target Audience	Webmasters (designated person/team responsible for the maintenance of the website and keeping the content of the website relevant and up-to- date.)
Synopsis of Content	This gives a standard to be followed by the web masters/team responsible for the development and maintenance of the website which includes standard processes to be followed and best practices.

#### **Executive Summary**

Once a website is operational, the operation and maintenance phase commence. The content management team is responsible for accurate, timely and complete content. All content, in all languages, should be developed and published in accordance with the content approval and review procedure. The website shall be maintained and kept up-to-date in all three languages. The security of the website should be maintained, and issues should be logged and remedied.

# **3.1.** Content Review and Approval Procedure

## i. Content Management Team (CMT)

Each organization shall appoint a **Content Management Team (CMT)** for the development and maintenance of the website. The CMT shall take responsibility for keeping the website active, up-to-date and relevant with all current information.

It is recommended that the CMT comprises of the following positions:

- 1. Chief Digital Information Officer Chairman
- 2. Web Master
- 3. Heads of each Division/ Department or their appointed representative
- 4. A representative from the web developer
- 5. Any other officials if required

#### ii. Responsibilities of the CMT

The approval and review process are centralized around the organization which owns the website. As per the web development guideline, website management is the responsibility of the Content Management Team (CMT). The CMT should ensure the website contains:

- an unambiguous and consistent message throughout the website
- information and functionalities that address the requirements to serve the citizens as offered in a physical office
- all-important organizational milestones and schedules
- all required contacts, location information
- consistent content provided in Sinhala, Tamil and English languages (or any other languages to meet the requirements of the audience served by the website).



#### iii. The Content on a website

The CMT should make sure that the content of the website;

- target the right audience served by the Organization
  - give a consistent message across the website
  - avoid superfluous, redundant or conflicting information
  - maintain highest quality in editorial content and graphical features
  - convey information in a concise and effective manner
  - be valid and current information
  - give equal levels of information in all three official languages
  - ensure access for people with disabilities, including motor, auditory, cognitive, seizure/neurological, and visual impairments; ensure content is "perceivable, operable, understandable, and robust."
  - create accessible products, and conduct accessibility testing before launch, or when making significant changes to digital products and services.
  - understand citizens' needs, set performance standards, collect and address customer feedback, and use data to continuously improve the programs
  - If required contain advertisements that promote and link other Government agencies as well as social messages.
  - review and sign off (authenticate) content, following the content review and approval process defined in this Government Web Standards document.

At the same time the CMT should make sure that the contents of the website should:

- NOT showcase commercial advertisements or endorse products and services of private sector organizations. (In rare instances where it is deemed beneficial for the citizens to package information together by having links to, or content from, private sector organizations, the CMT shall clearly indicate that such information does not represent endorsement)
- NOT contain any information in text, visual or any other media which may offend/harm the National sentiments, religious communities as well as security and integrity of the Country.

## iv. Content Writer and Translators

A content writer should write all the content and the services of Translators should be acquired for all translations. The Web Developer is not responsible for the development of the content, but the organization can at the time of procurement either designate one or more staff members to write content and translate, procure the services of a content writer and a translator as part of the Web Developer's contract to work in close collaboration with the organization or procure the content writing and translation services separately where the writer will be directly responsible to the organization.

#### v. Records Management

The CMT should;

- establish a mechanism to maintain inventories, priorities, and records schedules, and regularly delete or archive content that is obsolete and is not required by law or regulation.
- create content inventories which identify categories of information (e.g., press releases or publications), not specific documents.



#### vi. Content Validity

The CMT should review the website content regularly to ensure accuracy and validity of the information and should be current in nature. Hence the CMT should update the content with latest information from the Government Authorities immediately when it is made available.

The full digital content of the website shall be reviewed at regular intervals and it is recommended that a **full review be done by the CMT at least once every six months** and the content be changed/updated/removed as soon as it become irrelevant or ineffective. If a document published on the website is valid only for a certain period of time, the validity shall be clearly mentioned on the site and the document is removed or changed on expiration of the said validity period. Furthermore, the web-based informational services pages shall display a last updated date stamp to indicate the validity of the content at the end of each page.

The comprehensive Content Review Process can be accessed via Annexure A

# 3.2. Language Standards

Notes- include Links to; (Section 2)

https://www.language.lk/ - Includes resources, material and information related to using ICT in Local Languages, collected from various organizations and individuals.

https://helpcentre.lk/ - To diminish the issues where organizations, individual users encounter while using ICT in Sinhala and Tamil.

#### 3.3. Issue Logging and remedial procedure

The government organizations shall have an issue tracking platform such as GitHub, Redmine, JIRA, Bugzilla or at minimum a shared excel sheet to track the issues which might arise during the maintenance period. During this period there could be even change requests which could be enhancements to the websites. Therefore, in order to manage both the issues and change requests between the vendor and webmaster and to track them to closure, an issue logging procedure is very much required.

Further, in order to manage the timelines and expectations of the stakeholders with regards to the closure of the issues or changes, it is advised to follow a Service Level Agreement (SLA) with the vendor. Any critical websites shall have a penalty structure as well in case of SLA breaches as part of their maintenance agreements.



ANNEXURES



#### ANNEXURE A CONTENT REVIEW/APPROVAL PROCESS

The content review/approval can be done following a Manual or Electronic Process

#### **Manual Process**

All the Government organizations need to observe the following review process before approving the content to be published on the website.

The content review and approval process involve a mandatory two level sign off.

- 1. The Content writer will work with the CMT member representing each Division and draft the content relevant to the respective division. The Divisional Heads are responsible for providing the required information relevant to the division and will **sign off** on the content on completion of a comprehensive review.
- 2. The content signed off by the Divisional Heads will then be submitted to the Content Management Team (CMT) for review. The CMT will appoint a content reviewer who will review the content and if no further edits are required will forward the content for final approval detailed in point 3 below. If however the CMT reviewer finds any corrections the content will be again sent to the respective Division to follow process defined in point 1 above.
- 3. The CMT approved content will be submitted to the Head of the Organization or duly authorized person for review and **sign off.** The content will only be sent for publishing on the website and/or for Translation on completion of this second level sign-off.

## **Translations**

The translations will be reviewed by Translation Reviewers with proficiency in the specific language for translation accuracy before submitting for the two level sign off process detailed above.

#### **Translation time**

It is recommended that translations be completed, reviewed and approved within 7 days of the original being posted on the web.

All documentation with regards to the development of the website and content review and approval process should be filed under specific classifications with timeline indications for any future reference.

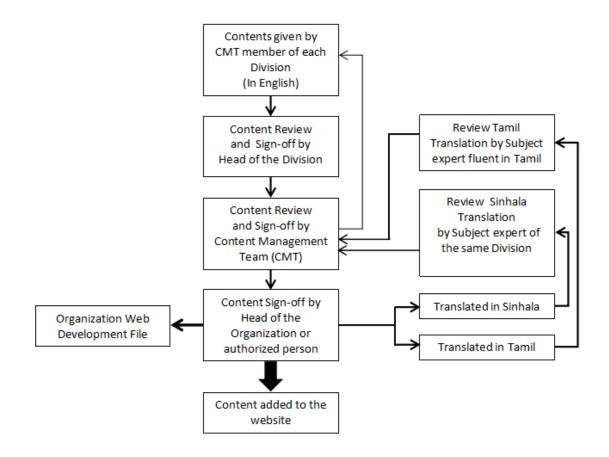
## **Work Flow**

The following diagram refers to a situation where the organization furnishes contents in English as the default content and it is getting translated into Sinhala and Tamil.

Once the content is reviewed and signed-off by the CMT or Content Manager the signed-off document should be placed under 'web development file' which maintains all the related documents in developing the website for the government organization.

Guidelines for Developing Sri Lanka Government Websites 4.0





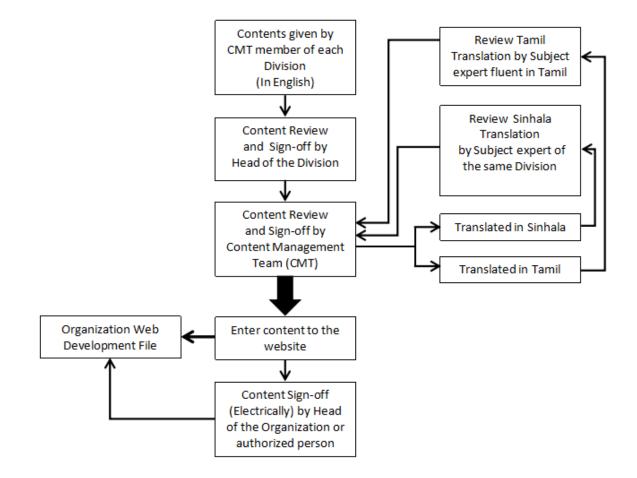
## **Content Review/Approval - Electronic Process**

This process can only be used when a Content Management System (CMS) is used in the process of content approval and publishing. In the electronic process the content will be uploaded into the system before it is electronically Signed-off by the Head of the Organization or Content Manager (if duly authorized).

#### **Work Flow**

The organizations can observe the following workflow when using CMS systems for content approval process. Since most of the currently available CMS provides only one level of sign-off facility the below mechanism shall be used.







#### **ANNEXURE B1**

#### BEST PRACTICES FOR USABILITY AND ACCESSIBILITY STANDARDS CONFORMITY

#### A. Best Practices and Tests for Usability Standards Conformity

The ease with which users can interact with a website is its **Usability**. For example, some sites are visually stunning but difficult to navigate, which makes it difficult for users to find the information they are looking for. People should be able to grasp the functioning of the site immediately after scanning the home page within a few seconds at most. A user friendly, functional website can be created by adhering to the web design best practices.

#### i. Optimize for mobile devices

The majority of citizens use mobile devices to access the internet. Therefore, it is vital and mandatory that Government websites be optimized to mobile devices of all types including low-end devices. There are multiple ways in which a website could be made mobile friendly, e.g., using responsive themes that adjust the content to match the screen size.

#### ii. Good Design and Colour Choices

Not only does a good design incorporates a responsive layout, but it also highlights the key features of your website and gives the user a clear understanding of what to do. Colour is a key element to accomplish this goal as it helps guide the eye around the page and can make your website feel cohesive, welcoming, and professional. Pairing strong colour choices with great imagery helps express your brand and can make emotional connections with your target audience.

#### iii. Create a visual hierarchy

A sound website design features simple and aesthetically pleasing visual cues that help users navigate and understand the website. While great content is a crucial element of a website, visual hierarchy paves the road to the important aspects of the website and helps users keep their eyes on areas that matter.

#### iv. Simplify the navigation

It's essential that your navigation menu serves as the road map for users to follow around the website. A simple, concise, and logical navigation menu gives visitors a sense of what the website has to offer and provides a clear path to the most important pages.

#### v. Establish credibility

The users won't have a good user experience on your website if they think it's untrustworthy. Credibility needs to be established as they enter into the website or users will feel unsafe while they're navigating.

#### vi. Legible and scannable content

Fonts used should be common fonts accessible in all devices and content should be easily legible. If users can't read the text on your website, they're going to leave the website and the objective of the website will not be met. Also, users won't read content word to word when going through a website and scans through to find the important information. Therefore, the content should be highly scannable.

#### vii. Be Consistent

The website should be consistent from page to page or it will confuse the user.



## **B.** Best Practices and Tests for Accessibility Standards Conformity

## i. Plan ahead

- Plan for accessibility conformity from the inception of the design.
- Carefully study the intended audience and take into account whether there will be users with special needs.
- Decide early in the design stage the extent to which accessibility should be implemented.

#### ii. Guidelines to adhere

 Developers of government websites are required to adhere to the Web Content Accessibility Guidelines (WCAG) version 2.1 <u>https://www.w3.org/WAI/standards-guidelines/wcag/</u>

## iii. Manual testing

- Test for common accessibility issues such as lack of keyboard accessibility, poor readability, images and content not being intuitive and navigation issues, among others.
- Create a checklist that applies to your website or application and check for each accessibility feature. (You may use publicly available checklists such as "Accessibility Guide" from United States Government https://accessibility.18f.gov/checklist/)
- Use web browser tools such as Mozilla Accessibility Inspector (<u>https://developer.mozilla.org/en-US/docs/Tools/Accessibility\_inspector</u>) and Google Chrome accessibility tools (<u>https://developer.chrome.com/docs/devtools/accessibility/reference/</u>) to test your site.

#### iv. Automated testing

- You may use one of many available tools for automated accessibility testing.
  - E.g., aXe (<u>https://www.deque.com/axe/</u>),
  - Wave (<u>https://wave.webaim.org/extension/</u>),
  - Siteimprove (<u>https://chrome.google.com/webstore/detail/siteimprove-accessibility/efcfolpjihicnikpmhnmphjhhpiclljc</u>)
- A guide for selecting automated testing tools (compiled by United Kingdom government) can be found here: <u>https://alphagov.github.io/accessibility-tool-audit/</u>

#### v. User surveys

User surveys representing a wide range of users with different needs may be conducted to assess the accessibility of the website or application prior to releasing for public use.

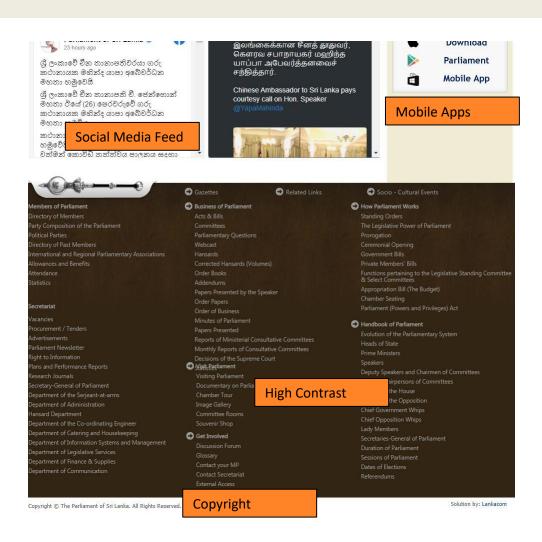


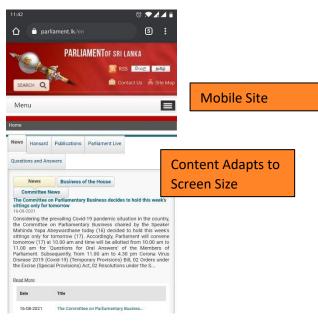
# C. Usability Look and Feel Example

The following is an **example** website (www.parliament.lk) which exhibits web usability standards. (Please note that this example website may not fully comply with the standards.) This illustration is only an example implementation, and it is not necessary to follow the same design, layout, and structure.

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	and Logo	SEARCH Q Contact Us de Jilo Map	Text Size
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News         Business of the House         Committee           The Committee on Parliamentary Business decides to hold this week's sittings only for tomorrow         13-89-2021           Considering the prevailing Covid-19 pandemic situation in the country, the Committee on Parliamentary Business chaired by the Speaker Mahinda 'yaa Abeywardhane today (16) decided to hold this week's sittings only for tomorrow (17). Accordingly, Parliament will convent formorow (17) at 10.00 am and time will be allotted from 10.00 am to 11.00 am for Ouestons for Oral Answers' of the Members of Parliam           Darker Fonts           Resolut	News Light Backgrou Date 16-09-2021 The Committee on Parliamentary Busin 12-08-2021 The Committee on Parliamentary Busin 11-08-2021 Vietnam Ambassador calls on Hon. Spe 021 State Minister Vidura Wickramanayaka co-vo-to21 Niew Zealand High Commissioner Meet	es es es es Parliament Calendar e August 2021	









## ANNEXURE B2 USABILITY AND ACCESSIBILITY CHECKLIST

Guidelines/ Recommendations for presenting information clearly and concisely that will optimize Accessibility and Usability of the website.

# **1. ORGANIZING CONTENT**

	Y/N	Comment
1.1 Does the website use simple language in (all three languages) that's		
understandable by the users?		
1.2 Is the content engaging, relevant, and appropriate to the audience?		
1.3 Have the information been grouped and organized clearly increasing		
browsing and scanning efficiency?		
1.4 Have the content been organized in a meaningful structure and sequence?		
Additional notes:		
1) Instructions and information provided should have minimal	reliance	on sensory

1) Instructions and information provided should have minimal reliance on sensory characteristics such as colour and shapes of elements. Unless essential for its functions, orientations (landscape or portrait) should not restrict the content view and operation.

# **2. TEXT APPEARANCE**

	Y/N	Comment
2.1 Have dark colour text been used on plain, high-contrast backgrounds?		
(preferable)		
2.2 Have visual consistency been ensured?		
2.3 Have common, familiar, clear, visible fonts been used that are readable on		
any common device?		
2.4 Have a font-size adjuster been used on the website?		
( <b>Recommended</b> - minimum of 3 font sizes to be used)		
2.5 Have Unicode fonts been used for all text, including pdfs?		
(Mandatory requirement)		
Additional notes:		
1) In websites where it is necessary for users to read large volumes of inf	ormatio	n, use lower-

- case fonts and appropriate capitalization to ensure the fastest possible reading speed (recommended not to use all capitals)
- 2) If the website targets Senior Citizens- use a larger font size by default.

# **3.** PAGE LAYOUT- STRUCTURE

	Y/N	Comment
3.1 Have an appropriate page layout been used based on the purpose of the		
website?		
3.2 Does the page layout enable easy location of target information?		
3.3 Have information been prioritized based on importance; from high to low		
level and this layout used consistently in all web pages?		
3.4 Have important clickable items (e.g., menus) been placed in the same		
location across app pages to maintain ease of navigation?		
3.5 Have the navigation been designed to show the users where they are at any		
point? (e.g., can use breadcrumbs or similar method)		



	<u></u>
3.6 Have the pages been structured in a way that information can be easily	
compared for similarities, differences, trends etc.	
3.7 Is the page layout not too crowded and cluttered with content?	
3.8 Have appropriate page sizes been used for homepages, navigation pages	
and for pages that need to be quickly downloaded?	
3.9 Have page elements/content/components been aligned both vertically and	
horizontally to enhance readability?	
3.10 Have text alignments been consistently used across all web pages?	
3.11 Have sufficient white space been provided appropriately (areas without	
text, graphics, etc.) on pages that facilitate scanning and searching of content	
on a web page?	
3.12 Have a Search feature been included? (mandatory)	
3.13 Have a standard, consistent website loading speed been ensured?	
(Maximum load time 2 sec for 2Mb/s connection or better)	
Note- complex searches may take longer	
3.14 Is the website responsive to/designed specifically for mobile devices?	
Additional notes:	
Ref. 3.8 above -Use longer pages to (1) facilitate uninterrupted reading (2) mai	tch the structure of a

paper counterpart (3) minimize page maintenance and (4) make pages download and print more conveniently.

# 4. HEADINGS, TITLES AND LABELS (MENUS AND SMALL BANNERS)

	Y/N	Comment
4.1 Are category labels (or menus), including links, clearly resemble the		
information and items contained within the category?		
4.2 Have unique and descriptive headings been used?		
4.3 Have descriptive page titles been used for each web page?		
4.4 Have critical data/ information to attract reader's attention been		
highlighted?		
4.5 Can the headings, titles and labels be accessed via mobile devices easily?		
Additional Notes:		
1) It's recommended to keep space for headings from top (breadcrumb or	conten	t if it's a sub
title) and bottom (contents of the article)		

# 5. LISTS

	Y/N	Comment
5.1 Have lists been used appropriately?		
5.2 Does the order of the content listed maximize user performance?		
5.3 Have (1) Bullets for lists of items with equal status and		
(2) Numbers if the items in the list have a particular order been used?		
5.4 Have an introductory heading been used on top describing the list?		
Additional notes:		
1) Start numbered items at one and not zero		

# 6. LINKS

	Y/N	Comment
6.1 Have meaningful Link Labels been used?		
• The link labels (URL Name) and concepts should be meaningful,		
understandable, and easily differentiated by users rather than only by		
the developers.		

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	1	
• Match Link Labels with the Destination Page and should be		
consistent with the title or headings of the destination page. This		
gives better understanding to users that they have reached the		
right destination.		
• Avoid misleading users of the Link with the use of text characteristics		
(e.g., font, underlining, colour etc.)		
6.2 Have text links been used? It is <b>recommended</b> that text links rather than		
image links which comes as small banners be used.		
6.3 Does the website indicate used links (through colour changes) when a link		
has been visited?		
6.4 Have text links with appropriate length been used that fits into menus or		
link locations where it's long enough to be understood, but short enough to be		
minimized and wrapped?		
6.5 Does the website indicate clickable regions of Images?		
When any part of an image is clickable, ensure that the entire image is		
clickable or that the clickable sections can be distinguished from other areas.		
6.6 Have important links been repeated?		
Important links can be repeated if appropriate as important content should be		
accessible from more than one link/ page (e.g., Home Page of the website)		
	I I	

# 7. NAVIGATION

	Y/N	Comment
7.1 Have options for Navigation been provided? (e.g., back button/close the		
window to go to original browser window etc.)		
7.2 Have Links been differentiated and clustered?		
Place navigation elements in a manner where they can be clearly differentiated		
from one another, and group them and place them to find easily and		
consistently on each page. This enables users to move from each page with		
ease as navigation scheme on all pages are consistent in locating tabs,		
headings, lists, search, site maps, etc.		
7.3 Have "Anchor Links" been used on Long Pages?		
(e.g. for long pages, have a "list of contents" on top of the page with links that		
take users to the corresponding content down the page or go to top of the page.)		
7.4- Have feedback been provided to users to identify the location in the		
website the user is at any point when using the website?		
(e.g. by using breadcrumbs, sitemaps, changing the colour of a link that has		
been clicked and using other visual indicators to indicate the active portion of		
the screen)		
7.5 Does the website have descriptive Tabs and Labels?		
7.6 Have "Glosses" (or annotations) been provided?		
Glosses are short phrases of information that pop up when a user places his or		
her mouse pointer close to a link - this helps users to select correct links.		
Additional notes:		
1) Examples of common menu items to be used - About us/	Divisio	ons/ Contact
us/Sitemap/Downloads/Reports/Statistics		
2) Examples of important Links- Search/ Help/Terms & Condition	s/Copy	right/Privacy
Policy/Disclaimer		



# **8.** TO OPTIMIZE THE USER EXPERIENCE

	Y/N	Comment
8.1 Have unwanted pop-ups been displayed?		
8.2 Following features can be used to increase Credibility of the website;		
• A professional design look		
<ul> <li>Citations and references for articles -when required</li> </ul>		
• Archiving to refer past content (e.g., news, magazine, etc.)		
• Has a "frequently asked questions" (FAQ) and answers for		
important questions.		
• Web content is arranged in a logical manner		
• Links are provided to outside sources and materials when extracts		
are taken or when reference is required.		
• The website is linked to other credible sites such as <u>www.gov.lk</u> and		
www.gic.gov.lk <u>.</u>		
8.3 Have Tasks been standardized?		
It is recommended to make users do the tasks in the same sequence and		
manner across the website under similar conditions. (e.g., having calendar		
control across the site or text box to enter date)		
8.4 Have prompts been used to guide user action?		
(e.g., using calendar controls when feeding the date, identity card validation		
to prevent entering invalid identity card number etc.)		
8.5 Is the website usable with touchscreen only?		
8.6 Is the website interface able to be navigated solely with a keyboard		
without using a pointing device? (eg. mouse)		
8.7 Have sufficient time been provided between transitions (if any) for the		
user to read and comprehend the content?		
For auto updating content; pause, stop and other relevant controls should be		
provided.		
8.8 Does the web pages appear and operate in a predictable manner?		
The context should not be changed abruptly in a way that it surprises the		
user. Navigation and other actions should be consistent.		
8.9 Have a provision been provided to warn when the web page is		
programmed to "Time Out", so that users can request additional time?		
8.10 Have information/data been provided in a directly usable format?		
8.11 Have ensured that articles are for web reading and printing if necessary?		
8.12 Does the website inform/indicate download time?		
8.13 Does the website provide appropriate feedback when users are required		
to wait when a process is happening in the background?		
e.g.		
• Use of hourglass or other method to indicate status.		
• Use of progress indicator to show the progress toward completion.		
• Use of auditory signals to denote processing is complete.		

# **9. SEARCH FUNCTIONS**

	Y/N	Comment
9.1 Are the search results usable?		
9.2 Can the entire website be Searched?		
It is recommended to provide facilities for users to narrow the scope of		
searches from a large search result by selecting relevant options.)		
9.3 Is the website's search function not case sensitive?		
It is recommended searches to be non-case sensitive unless it is mandatory		



9.4 Is the user notified when multiple searches are available?	
(e.g., Search/ Advanced Search)	
9.5 Does the website provide search templates that facilitate and optimize	
search results for the user?	
(e.g., to find information on "User Testing" search template key words	
"Interface testing" / "heuristics testing" / "performance testing" / "Alfa	
testing" / "beta testing" are provided)	
9.6 Have appropriate Meta tags been used to define the website for search	
engines?	
(e.g., <meta content=" keyword one, keyword two,&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;keyword three" name="keywords"/> )	

# **10. SOFTWARE AND HARDWARE**

	Y/N	Comment
10.1 Is the website designed for common browsers and operating systems?		
The website should be designed to accommodate the totality of internet users		
and different browsers and different operating systems		
10.2 Have browser differences been considered?		
It's advised not to assume that all users will have same browser settings which		
leads to same browser features. e.g., users with visual impairments tend to use		
larger fonts, and use fewer colours. The developer should have a general idea		
on what settings most users are using, and specify on the website exactly what		
assumptions were made about the browser settings (e.g., best viewed on 1024		
x 768)		
10.3 Have internet bandwidth been considered when developing the website?		
Develop the website for the connection speed which supports most users. It's		
recommended to develop websites for 1Mb/s internet bandwidth to cater to a		
wider audience.		
10.4 Have the website been designed for a commonly used resolution?		
It should be responsive on large and small screens		

# **11. GRAPHICS, IMAGES, AND MULTIMEDIA**

	Y/N	Comment
11.1 - Have background images been included?		
It is recommended to <b>avoid</b> background images or include simple images		
when it is absolutely required		
11.2 Have image capacity been optimized to minimize the download time?		
11.3 Have image usage been limited?		
Make sure the images used add value to the website and use them only when		
it's critical to the success of the website. Images visually enhance and can		
bring clarity, but ensure it doesn't frustrate users when browsing.		
11.4 Have Thumbnails been used?		
When viewing full-size images that are not critical (e.g., Galleries) first		
provide a thumbnail of the image. By providing thumbnail images, users can		
decide whether to wait for the full- size image to load.		
11.5 Have multimedia been used meaningfully?		
Use video, animation and audio only when it's required to convey the intended		
message more efficiently.		
11.6 Have captions and audio descriptions been provided for pre-recorded		

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audio and video?		
11.7 Have text alternatives been provided for non-text content (alt-text)?		
Some situations such as the following may be exempted;		
Time- based media - provide a description to identify the media item.		
Decorations - alt-text is not required for content used purely for decorative		
and formatting purposes.		
CAPTCHA - do not provide alt-text, but provide alternate means of		
completing captcha (e. g. Audio)		
11.8 Have content that is known to cause physical reactions such as seizures		
been avoided?		
e.g., three flashes within a one second period is considered hazardous for some		
individuals and may cause seizures.		
11.9 Have Monitoring/Analytical information been presented in graphical		
form?		
11.10 Have Animations been introduced appropriately?		
11.11- Have real world objects been used?		
11.12- Have images that facilitate learning been used?		
To facilitate quick learning or pass information more efficiently, use images		
rather than text whenever possible.		
11.13- Have approval/rights to publish images been acquired when using		
proprietary photographs?		
Using photographs of people may or may not help build trust in the website.		
Therefore, use of people's photos should be carefully handled.		



# ANNEXURE C DOMAIN NAMES

## **Choosing a Domain Name**

A Domain Name System (DNS) naming convention is followed for national and sub- national levels Government Institutions allowing them to establish their identity in the internet and minimizing complexities when changing them in response to environmental changes (e.g., changes in the mandate of the organization) to ensure continuity and reduce administrative burden.

Choosing an appropriate domain name is quite challenging due to the dynamic characteristics of different Government Institutions, as detailed out below;

- 1. Volatility of cabinet portfolios and vulnerability to political system changes.
- 2. Long names assigned to Government Institutions based on cabinet portfolios
- 3. Unrelated subjects assigned to a single ministry
- 4. The mandates given to Government Institutions being changed often.
- 5. Ministries are essentially a collection of specialized agencies (Departments, Authorities, Boards, Commissions, etc.) and there are often separate websites for these agencies.
- 6. These agencies belong to different ministries with change of portfolios and mandate.
- 7. Some Institutions have a historically long existence (Department of Surveyor General)
- 8. Some names remained unchanged over a long period of time (Pensions, Labour, Customs, Inland Revenue)
- 9. Identified by the specialized subject entrusted to.
- 10. Specific Government bodies are formed as Divisions under Ministries or Departments (e.g., Health Education Bureau, Epidemiology Unit)
- 11. There are also Regulatory bodies (e.g., Telecom Regulatory Commission, Public Service Commission) and
- 12. Diplomatic missions (e.g., Foreign Missions)

Domains under gov.lk shall be registered under the following categories: The following categories are mentioned in the eGovernment policy (latest iteration of the policy is currently under ICTA review)

Organization	Domain format
Ministries & Departments	gov.lk
Provincial Councils	wp.gov.lk, np.gov.lk, sp.gov.lk, nw.gov.lk, ep.gov.lk, cp.gov.lk, sg.gov.lk, up.gov.lk, ncp.gov.lk
District Secretariats	dist.gov.lk
Divisional Secretariats	ds.gov.lk
Municipal Councils	mc.gov.lk



Urban Councils	uc.gov.lk
Pradeshiya Sabhas	ps.gov.lk
Diplomatic Missions and Consulate Offices	mission.gov.lk

The detailed domain name registration process for GOV.LK websites can be accessed via <a href="https://www.icta.lk/digitizing-gov/gov-lk-domain-registration/">https://www.icta.lk/digitizing-gov/gov-lk-domain-registration/</a>

#### **Changing Domain Names**

An organization may change its domain name due to the following reasons;

- Change of the organization's portfolio (e.g., generally a set of new ministries are created after a new government is appointed and portfolios of ministers can be changed after cabinet reshuffles)
- Organization changes the domain name based on user preference (e.g., donets.lk was changed to exams.gov.lk)

In such situations the organization shall follow following procedures periodically from least significant to most significant change.

- Leave domain name unchanged if the changes to the portfolio of the agency do not substantially affect the domain name (core subjects are retained - e.g., Ministry of Public Administration retained its domain name <u>www.pubad.gov.lk</u> despite the fact that other subjects assigned were removed),
- 2. Leave domain name unchanged if the agency change does not substantially affect domain name (subjects not fully changed),
- 3. Change only the web domain name, leave e-mail addresses unchanged,
- 4. Change domain name (Web and E-mail) to reflect new name

#### Procedure to change domain name

- 1. The organization needs to register the new domain name aligning to policy and procedures of registering a domain name for Government organizations detailed above.
- 2. The old domain name should exist for a period of 6 months with a redirection page to the new domain name with notification to users of the new domain.
- 3. E-mail addresses of the old domain name should carry an auto response to send mails to the new address and all e-mails needs to be forwarded to the new mail id assigned.
- 4. Old domain should be taken out of service only after 6 months of time from the day the above procedures are followed.

#### **Dispute resolution procedure**

Any dispute with regards to a domain name will be amicably resolved by relevant parties having a discussion with ICTA.



# ANNEXURE D1 SAMPLE PRIVACY POLICY

V1210521

#### **Privacy Policy**

Last updated:		
Welcome to the Privacy Policy of the	(hereinafter	collectively
referred to as "/ Website" "Us" "We" or "Our").		

This Privacy Policy details the manner in which we collect, use and protect Your Personal Data provided by You in the course of Your interaction with this Website.

This Privacy Policy sets out and defines the privacy policies and procedures of this Website including but not limited to the collection, use and disclosure, of your personal data through the Website.

This Privacy Policy further provides you with information regarding your privacy and data protection rights available under the existing legal framework in Sri Lanka which shall be updated from time to time.

Please read this Privacy Policy to understand how We collect and process Your Personal Information and for what purposes, and the choices You have concerning how Your Personal Information is collected and used by Us.

By using this Service, you agree to the Processing of Your Personal data in accordance with this Privacy Policy.

#### **1. Interpretation and Definitions 1.1 Interpretation**

The words of which the initial letter is capitalized have meanings defined under the following conditions.

The following definitions shall have the same meaning regardless of whether they appear in singular or in plural.

#### **1.2 Definitions**

For the purposes of this Privacy Policy;

- Account means a unique account created for You to access the Service or parts of the Service.
- **Cookies** are small files that are placed on Your computer, mobile device or any other device by a website, containing the details of Your browsing history on that website among its many uses.
- Country means the Democratic Socialist Republic of Sri Lanka.
- Other Government Parties means relevant governmental ministries, departments and statutory bodies of the Democratic Socialist Republic of Sri Lanka including but not limited to
- **Personal Data** means personally identifiable information requested for or gathered as Registration Data.
- **Registration Data** is any information that is required for the access and use of the Service which may also include Personal Data.



- Web Application (at times referred to as "We", "Us" or "Our" in this Agreement) is facilitated by Information and Communication Technology Agency of Sri Lanka (in collaboration with .....), on behalf of the Government of the Democratic Socialist Republic of Sri Lanka.
- Usage Data refers to data collected automatically, either generated by the use of the Service or from the Service infrastructure itself (for example, the duration of a page visit).
- Website refers to .....
- You or Your means the individual accessing or using the Service, or the company, or other legal entity on behalf of which such individual is accessing or using the Service, as applicable.

# 2. Collecting and Using Your Personal Data

#### **2.1 Types of Data Collected**

#### **2.1.1 Personal Data**

In order to use the Service, we may request from You to provide Us with certain personally identifiable information or Registration Data that can be used to contact or personally identify You at the point of registering for the Service or any time thereafter. Personally identifiable information requested for or gathered under Registration Data may include, but is not limited to:

- .....
- .....
- .....

# **2.1.2 Information We Receive or Collect from Third Parties**

In addition to Usage Data, we may receive or collect information about You from third parties and combine and store it on Our servers with other information We may have already received or collected from You. These third parties include Government / Private sector organizations, including Ministries, Departments, Provincial or Local Authorities and other connected websites or applications that may receive or collect information about You while facilitating the Services defined above. We are not responsible for, and will assume no liability, if a third party or other entity collects, uses, or shares any information about You in violation of its own privacy policy or any applicable laws, rules, or agreements.

# **2.1.3 SMS Notifications**

We may send You SMS notifications from time to time in order to update You on your appointments, and related records. To ensure You receive proper notifications, We may collect certain information as may be specified from time to time.

# 2.1.4 Our Use of Cookies

This Website uses a technology that is commonly known as "Cookies." A cookie is a file Our server writes to Your hard drive that contains an alphanumeric identifier.

We use the identifier in a cookie to help Us manage and report on Your interaction with the Service. Through cookies, We are able to collect information that We use to improve the Service, keep count of return visits to Our portal, collect and report on aggregate statistical information, authenticate Your login credentials, or manage multiple instances of the Service in a single browser. We may also collect other data such as the page or site that referred You to the Service, the date and time



You visited the Service, and Your current IP address. The cookies We place on Your hard drive are known as "first-party cookies."

We use both session cookies and persistent cookies. A session cookie expires when You close your browser. A persistent cookie remains on Your hard drive for an extended period of time. You may be able to remove persistent cookies by following directions provided in Your browser's "help" section. If You do not accept first-party cookies You may still use our Service, but Your ability to use some areas of Our website, and the ability to stay logged in, will be limited.

## **2.2 Use of Your Personal Data**

This Website may use your Personal Data for the following purposes:

- To establish the Services, you have registered for;
- To verify and validate your identity when required;
- To provide and maintain our Service, including monitoring the usage of our Service.
- **To manage Your Account;** to manage Your registration as a user of the Service. The Personal Data You provide can give You access to different functionalities of the Service that are available to You as a registered user.
- **To contact You:** To contact You by email, telephone calls, SMS, or other equivalent forms of electronic communication, provide updates or informative communications related to the functionalities, services, including security updates, when necessary or reasonable for their implementation.

## 2.3 Retention of Your Personal Data

The Website will retain Your Personal Data for as long as it may be necessary to carry out the purposes set out in this Privacy Policy. We will retain and use Your Personal Data to the extent necessary to comply with legal obligations (for example, if We are required to retain your data to comply with applicable laws), resolve disputes, and enforce our legal obligations and policies.

#### 2.4 Transfer of Your Personal Data

Your information, including Personal Data, is processed by the Website Your consent to this Privacy Policy followed by Your submission of such information represents Your agreement to that transfer and its use.

The Website will take all steps reasonably possible to ensure that Your data is treated securely and in accordance with this Privacy Policy.

#### 2.5 Storage of Your Personal Data

Your Personal Data collected by this Website shall be hosted on Lanka Government Cloud 2.0 (LGC 2.0), the central and common hosting environment utilized by the Government of Democratic Socialist Republic of Sri Lanka and We ensure that Your information collected on this LGC 2.0 shall at all times be stored within the territory and control of the facilitators of this Website ie; the Information and Communication Technology Agency of Sri Lanka and the Government of the Democratic Socialist Republic of Sri Lanka.

### 2.6 Disclosure of Your Personal Data

For the effective management of the Services provided under this Website, We may be required to disclose Your Personal Data to other Government entities as and when required. Under certain circumstances, this Website may require you to disclose Your Personal Data under provisions of



written law or in response to valid requests by public authorities, pursuant to obligations under written law.

### **2.7 Other legal requirements**

This Website may disclose Your Personal Data in the good faith belief that such action is necessary to:

- Ensure compliance with legal and regulatory requirements in the interest of public or any other obligation imposed by written law;
- Ensure performance of the Services;
- Validate your information, as and when required;
- Protect against legal liability

### 2.8 Security of Your Personal Data

The security of Your Personal Data is paramount to Us. We may share necessary data with other Government institutions, to serve you in a most efficient and effective way, unless such sharing is prohibited by law. We will NOT share your personal data with non-Government entities, except where such entities have been authorized to carry out specific Government services specified in this Website. To safeguard the confidentiality and security of your Personal data to the best of Our abilities, all electronic storage and transmission of Personal data is secured with reasonable technical, administrative and physical measures. When your personal information is shared, we will take a reasonable approach to prevent the unauthorized use and disclosure of personal information.

Please note, however, that while we attempt to safeguard your personal information, no method of transmitting or storing electronic information is ever completely secure, and thus we make no warranty, express, implied, or otherwise, that your information will never be accessed, used or released in a manner that is inconsistent with this Privacy Policy.

We do not accept any responsibility whatsoever for any unauthorized access or loss of Personal Information that is beyond our control.

### 3. Changes to this Privacy Policy

We may update this Privacy Policy from time to time. Such updates shall be posted on this Website as and when this Privacy Policy is updated. If any changes to this Privacy Policy is made, we will notify you by including a "**NEWLY UPDATED**" label with the "**PRIVACY POLICY**" link on our Services after material changes are made.

We encourage you to review this Policy periodically for any changes.

After such updates are posted, use of Our Services will be understood as consent to the updates to the extent permitted by law.

### **Contact Us**

You have the right to verify and access Personal Data held by us about you and correct any inaccuracies.

We will take reasonable steps to ensure that your Personal data is accurate. To help us do this, please notify us of any changes to your Personal Data as and when it occurs.

If you have any questions about this Privacy Policy, you can contact us: by email: info@icta.lk



# ANNEXURE D2 SAMPLE COPYRIGHT NOTICE

The below copyright notice is only a sample. Legal department approval should be received before publishing a copyright statement in any Government website.

"This site is copyright 20xx *Dept. of xxxxx*. The material featured on this site may be reproduced free of charge in any format or media without requiring specific permission. This is subject to the material being reproduced accurately and not being used in a derogatory manner or in a misleading context. Where the material is being published or issued to others, the source must be prominently acknowledged. However, the permission to reproduce this material does not extend to any material on this site which is explicitly identified as being the copyright of a third party. Authorization to reproduce such material must be obtained from the copyright holders concerned."



# ANNEXURE D3 SAMPLE DISCLAIMER NOTICE

Below is a sample disclaimer notice- note that Organization and transaction specific disclaimers should be developed in consultations with the legal department of the Government Organization.

"The information posted on this website could include hypertext links or pointers to information created and maintained by non-Government/private organizations. (Name of Government Organization) is providing these links and pointers solely for your information and convenience. When you select a link to an outside website, you are leaving the (Name of Government Organization) website and are subject to the privacy and security policies of the owners/sponsors of the outside website. (Name of Government Organization), does not guarantee the availability of such linked pages at all times."



# ANNEXURE E1

## Terms of Reference for Hiring a Startup Development of the website for *<Organization Name>*

### 1. Introduction

The need of the citizens to interact with Government organizations for various information and other key services has been identified as a highly important segment, which the Government is maximizing its efforts to cater to the same. Moving in line, *Organization Name>* has taken the initiative to develop website considering the necessity of contributing to a national level requirement.

Presently, Information and communication technology-based strategies are becoming more popular over traditional communication methods in providing up to date information and means of interaction to the public. As a result, public sector organizations in many countries use various strategies to be more citizen friendly, in providing its information and services. Providing information through websites is one such strategy used.

### 2. Background

With the rapid growth of the internet usage for obtaining government services in order to fulfill day to day needs web development has become a major requirement. An organization must have a comprehensive web site that reaches its individual target end users. Organizational websites have become the key information provider to the society.

By putting the understanding in to practice, *<Organization Name>* commenced developing/revamping website to deliver government services to citizens in the most effective and proficient manner.

Since it is one of the most convenient mechanisms to access more information regarding the services provide by government organizations, *<Organization Name>* intends to initiate a project aiming the implementation of multiple website developments and revamping.

# 3. Concise statement of the objectives

<*Organization Name*> intends to procure and obtain the services of a consultancy firm to implement a website for a Government Organization. The consultancy firm is required to gather requirement, design and develop websites and ensure that up to date and accurate information are available in all three languages while conforming highest standards align with government web standard.

# 4. Scope of Work

- 4.1. *<Organization Name>* intends to develop a website for the government organization and in order to provide support to the respective organization for maintenance and updating the sites through content management tools.
- 4.2. The Consultancy firm shall study the main functions and services provided by the mentioned Organization to understand its scope of work and identify the key stakeholders of the Organization.



- 4.3. The Consultancy firm shall educate and create awareness among the officials of the organization on useful features that could be used for information dissemination through the Internet.
- 4.4. With the understanding of the scope consultancy firm is required to identify and design the Content collection matrix in all three languages.
- 4.5. The Consultancy firm is required to work collaboratively with the Content Management Team (CMT) of the government organization in obtaining and finalizing the content.
- 4.6. The Consultancy firm shall design the websites based on the requirements of the assigned government organization and as per the government web standards.
- 4.7. The proposed design shall facilitate the content management requirements of organization to add information and services incrementally as and when those become available.
- 4.8. The Consultancy firm shall design the website structure and finalize the information architecture of the website for providing information and services in all three languages (Sinhala, Tamil and English) and obtain the acceptance from CMT.
- 4.9. The Consultancy firm required to write website content and translations if necessary. (In three languages: Sinhala, Tamil and English). Such shall be identified at the requirement gathering stage.
- 4.10. The consultancy firm shall design the website in such a way that website follows user friendly workflows by adhering to Government web standards.
- 4.11. The Consultancy firm is required to get the advice of ICTA in designing the website of prospective government organization. Developers are free to propose a design aligned with the requirements gathered and with the government web standards.
- 4.12. The Consultancy firm is required to use an Open-Source Content Management System Tool (CMS) for the proposed web site in order to provide the CMS support for ALL pages. (i.e., Joomla, Drupal or Word Press)
- 4.13. The overall style of the proposed website and look and feel need to be aligned with the context of the Organization, preserving its esteemed image.
- 4.14. The total number of pages for a certain website will be determined by the relevant government organization.
- 4.15. The Consultancy firm should adhere to the World Wide Web (W3C) standards and latest version of Government web standards.
- 4.16. If any small scaled eservice components to be developed, the database handling software shall be Open-source and Compatible to the platform Used (To develop the backend databases to support content management). Such shall be identified and decided at the requirement gathering phase



- 4.17. The Consultancy firm is required to provide training to the staff of the respective government organizations over the developed website. The training shall include but not limited to following;
  - Content management tool
  - Content management in all three languages
  - Management of the small scaled eservice wherever applicable
- 4.18. Respective government organization is supposed to provide the content in all 3 languages (English, Sinhala and Tamil) and is required to provide the content in at least in one language. Although in case of inability to provide the content in all 3 languages the consultancy firm is required to provide the translation facility (this need to be identified at the requirement gathering session)
- 4.19. Key consultants are required to be available on-site as and when necessary.
- 4.20. All consultants are required to sign a Non-Disclosure Agreement (NDA) where applicable.
- 4.21. The Consultancy firm required to provide soft copies of all source codes, databases, Content Management tool, graphics, design documentations and other related documents used in the website to the respective public sector organization.
- 4.22. The Intellectual property rights relating to the graphics, photos (captured by the photographers), text, artwork, design, sound recordings, software, database, and any other components developed for this project by the consultant shall be the property of the Organization and shall have the right to transfer such rights to the community it prefers.
- 4.23. If any proprietary software components belonging to the consultant shall be licensed to the Organization for perpetual use. The consultant shall require making appropriate arrangements to make available the source code of the said proprietary software to the client in the event of either bankruptcy or winding of merger of the consultant company.
- 4.24. Content Management Tool's credentials (including super user credentials) and File Transferring Protocol (FTP) credentials should be handed over to the Organization after signing off the website. The passwords can be obtained from the Organization during the maintenance period.
- 4.25. The Consultancy firm should impose the copyright and declaimer notice as specified by the Purchaser.
- 4.26. All confidential information exchanged during the assignment should not be disclosed by the consultant to a third party.
- 4.27. The consultancy firm shall guarantee the Quality Assurance of the whole website in all aspects.
- 4.28. The consultancy firm shall describe the Quality Assurance approach in detailed Methodology.
- 4.29. The consultancy firm shall implement all necessary security measures and adhere to the security measures proposed by Sri Lanka Computer Emergency Response Team (SLCERT)



for ensuring the security of the website where the website should be immune to the exploitations (Refer Government Web Standards)

- 4.30. The consultancy firm shall purchase the SSL certificate as prescribed by *Organization Name>* and for 3 years on behalf of the organization.
- 4.31. The consultancy firm required to manage and maintain the website for a minimum of one (1) year period time from the date of the website development sign off.

# 4.31.•.1. Maintenance

- 4.31.•.1.1. Following services should be provided by the consultant for a period of one(1) year without any additional cost. Manage and maintain the website fora one (1) year period from the date of acceptance letter (sign off) issued byContent Manager of CMT.
- 4.31.•.1.2. The consultancy firm shall manage the website development for a period of twelve months from the date of launch of each website adhering to a Service Level Agreement. Support Level for this assignment is "Medium" - [Refer Annex 03]
- 4.31.•.1.3. Government Organization is able to extend their maintenance period by signing a contract agreement between them and the web development company by ensuring the providence of the payment for maintenance cost for the required period of time.
- 4.31.•.1.4. Updates requested by the Organization should be uploaded within 24 hours of receiving the information.
- 4.31.•.1.5. The web developer should submit a report at the end of each month during the maintenance period covering the following areas.
  - a. No of visitors location based
  - b. No of hits to all pages
  - c. Visitors' previous link
  - d. No of downloads for different articles
  - e. No of payments
  - f. Isolated, static, missing and incomplete pages
- 4.31.•.1.6. Consultancy firm shall provide Helpdesk support to user in updates and contents management for one (1) year period from the date of signoff.
- 4.31.•.1.7. Consultancy firm shall upgrade Open-Source Content Management System version and resolve all such issues that may arise due to upgrading such as content alignment, security etc. during the maintenance period.
- 4.31.•.1.8. Attend to all types of Corrective maintenances (Bug fixing and installing of security patches). If user discovers any error/failure in the website, web consultant should respond and rectify immediately. Meantime to Response (MTR) should not exceed one hour and Mean Time to Resolution should



not exceed 24 hours from the time of being informed. Notification of errors/failures should be possible through email, telephone, and fax or in letter format.

4.31.•.1.9. The Consultancy firm required to fulfil the following requirements.

- a) Ensure the website is up and running.
- b) Documentation and technical support
- c) Add new paragraphs, text to the existing webpage (ex: address changes, telephone number changes etc.).
- d) Insert new photos, images, to the body of the pages.
- e) Adding, Removing and updating hyperlinks.
- f) Insert new colour schemes to the web pages.
- g) Insert new menu items to the existing menus.
- h) Include hit counters, last modified dates etc.
- i) Uploading new pages to the server.
- j) Minor modifications to the webpage banners.
- k) Train and guide the Organization for generating statistics on the website.
- 1) Provide technical support to the Organization to change the server location where the website is already hosted.
- m) Adding new pages should be done according the predefined cost breakdown which is unit cost based

# 5. Preferred qualification for consultants

The consulting firm should have the suitable resource persons for the following position in this project with relevant qualifications and experience.

Key Professional Staff	Academic	Experience
Project Manager	BSc in IT or equivalent	36 Months
Full Stack Web Developer(s)	BSc in IT or equivalent	18 Months
UI Engineer	BSc or equivalent	12 Months
QA Engineers (s)	BSc or equivalent	12 Months

# 6. Work Schedule

Project duration shall cover a maximum ceiling of 3 months including requirement gathering, designing, developing and hosting of websites.

Consultancy firm is required to submit the following list of deliverables during the project.



No	Deliverables	Phase	Payment % of Total Payment
5.1	<ul> <li>5.1.1 Website development Proposal</li> <li>5.1.1.1 Website navigation structure</li> <li>5.1.1.2 Finalized Website design</li> <li>5.1.1.3 Number of person days of the assignment</li> <li>5.1.1.4 Website development schedule</li> <li>5.1.1.5 Search engine optimisation (SEO) and Quality Assurance (QA) Plan</li> </ul>	Inception	30%
5.2	5.2.1 Website prototype	Elaboration	10%
5.3	<ul><li>5.3.1 Complete full functional English, Sinhala, Tamil versions of website</li><li>5.3.2 Successful UAT acceptance</li></ul>	Construction	30%
5.4	5.4.1 IS Audit Approval by SLCERT (or any other party recommended by SLCERT)	Construction	10%
5.5	<ul><li>5.5.1 User/administration manual of the website</li><li>5.5.2 Government organization level training</li><li>over the provided web solution</li><li>5.5.3 Website hosting confirmation</li></ul>	Transition	20%
5.6	5.6.1 Quarterly website management report	Web solution support & maintenance	Quarterly managemen t cost as per the agreed percentage

# 7. Services and Facilities Provided by ICTA

The Organization will provide the following facilities to the development team.

- A. Arrange meetings with relevant end users and senior managers of the assigned organizations, if the need arises;
- B. Issue an introductory letter, co-ordinate and arrange all appointments / meetings with the stakeholders.
- C. ICTA will provide web hosting solution which includes web servers and database servers for hosting the web sites.

Other than above listed facilities, no facilities whatsoever will be provided to the successful bidder by the Client.

# 8. Review Committees and Review Procedures

All versions of deliverables will be reviewed by the Review Committee.



# [ANNEX 1]

# SERVICE LEVEL AGREEMENT

## **1.** Introduction

The aim of this agreement is to provide a basis for close co-operation between the Client and the Consultant for support and maintenance services to be provided by the Consultant, thereby ensuring a timely and efficient support service is available. The objectives of this agreement are detailed in Section 1.1.

This agreement is contingent upon each party knowing and fulfilling their responsibilities and generating an environment conducive to the achievement and maintenance of targeted service levels.

## 2. Objectives of Service Level Agreements

- **1.** To create an environment conducive to a co-operative relationship between Client, Consultant and Client's representatives (government organizations) to ensure the effective support of all end users.
- 2. To document the responsibilities of all parties taking part in the Agreement.
- **3.** To define the commencement of the agreement, its initial term and the provision for reviews.
- **4.** To define in detail, the service to be delivered by each party and the level of service expected, thereby reducing the risk of misunderstandings.
- **5.** To institute a formal system of objective service level monitoring ensuring that reviews of the agreement is based on factual data.
- **6.** To provide a common understanding of service requirements/capabilities and of the principals involved in the measurement of service levels.
- **7.** To provide for all parties to the Service Level Agreement a single, easily referenced document which caters for all objectives as listed above.

#### **3.** Service Level Monitoring

The success of Service Level Agreements (SLA) depends fundamentally on the ability to measure performance comprehensively and accurately so that credible and reliable information can be provided to customers and support areas on the service provided.

Service factors must be meaningful, measurable and monitored constantly. Actual levels of service are to be compared with agreed target levels on a regular basis by both Client and Consultant. In the event of a discrepancy between actual and targeted service levels both Client and Consultant are expected to identify and resolve the reason(s) for any discrepancies in close co-operation.

Service level monitoring will be performed by Client. Reports will be produced as and when required and forwarded to the Consultant.

## 4. Support Levels

The consultant must provide support and maintenance services during Support Levels mentioned below;

#### Support Level: Medium



1) Component/Service	For front-end portlets and supporting back-end
	applications (web services, etc. deployed at
	Lanka Government Cloud (LGC) and mobile app
	stores)
Support Hours:	From 08:00 AM to 05:00 PM, all days in the
	week

# 5. On-Call Services Requirements

Consultant MUST make at least ONE qualified personnel available to the Client by telephone and email for the reporting and resolution of non-conformities or other issues, defects or problems. Dedicated telephone numbers and emails should be available for reporting issues. Client will nominate the personnel who are authorized to report non-conformities or other problems with the system from the departments. Reporting of non-conformities includes requests by the Client to apply critical software updates or patches.

Table-1 shows the response priority assigned to faults according to the perceived importance of the reported situation and the required initial telephone response times for the individual priority ratings. All times indicated represent telephone response time during specified Support Levels. The indicated telephone response time represents the maximum delay between a fault/request being reported and a consultant's representative contacting the Client by telephone. The purpose of this telephone contact is to notify the Client of the receipt of the fault/request and provide the Client with details of the proposed action to be taken in respect of the particular fault/request.

Support Level	Business Critical	Business Critical	Non- Business Critical	Non- Business Critical
	Fatal	Impaired	Fatal	Impaired
High	60 minutes	90 minutes	90 minutes	120 minutes
	within	within	within	within
	Support	Support	Support	Support
	Hours	Hours	Hours	Hours
Medium	120 minutes	150 minutes	150 minutes	180 minutes
	within	within	within	within
	Support	Support	Support	Support
	Hours	Hours	Hours	Hours

Note:	
Fatal	- Total system inoperability
Impaired	- Partial system inoperability
<b>Business Critical</b>	- Unable to perform core business functions
Non-Business Critical	- Able to perform limited core business functions

Consultant notification can occur outside Support Level time, and thus the response may occur after the next Support Level begins. Furthermore, "Time to Arrive On-Site (Table-3)" starts from



Support Level starting time and "Time to Resolve the Problem" is Support Level time starting from the actual time of arrival on site.

# 6. Problem Resolution and Penalties

If problems have not been corrected within two (2) hours of the initial contact, the Consultant shall send qualified maintenance personnel to the respective Client's site to take necessary actions to correct the issue reported (defect, problem or non-conformity).

If faults are not corrected within the time limits specified in the Table-2, the Client shall be entitled to a penalty payment for each hour that the Consultant fails to resolve the fault.

Maximum ceiling of penalty for a given month is 10% of the monthly support and maintenance price.

Support Level	Business Critical	Business Critical	Non- Business Critical	Non- Business Critical
	Fatal	Impaired	Fatal	Impaired
High	6 Hours	10 Hours	10 Hours	15 Hours
	LKR 5,000.00	LKR 3,000.00	LKR 3,000.00	LKR 2,000.00
	per hour	per hour	per hour	per hour
Medium	8 Hours	12 Hours	12 Hours	20 Hours
	LKR 5,000.00	LKR 3,000.00	LKR 3,000.00	LKR 2,000.00
	per hour	per hour	per hour	per hour

The time to arrive on-site is specified in the Table-3.

Support Level	Business Critical	Business Critical	Non- Business Critical	Non- Business Critical
	Fatal	Impaired	Fatal	Impaired
High	Not applicable	Not applicable	Not applicable	Not applicable
Medium	2 Hours	3 Hours	3 Hours	5 Hours

Table-3: Time to arrive on-site



# ANNEXURE E2

### Terms of Reference - General Development of the website for *<Organization Name>*

### 1. Introduction

The need of the citizens to interact with Government organizations for various information and other key services has been identified as a highly important segment, which the Government is maximizing its efforts to cater to the same. Moving in line, *Organization Name>* has taken the initiative to develop website considering the necessity of contributing to a national level requirement.

Presently, Information and communication technology-based strategies are becoming more popular over traditional communication methods in providing up to date information and means of interaction to the public. As a result, public sector organizations in many countries use various strategies to be more citizen friendly, in providing its information and services. Providing information through websites is one such strategy used.

### 2. Background

With the rapid growth of the internet usage for obtaining government services in order to fulfill day to day needs web development has become a major requirement. An organization must have a comprehensive web site that reaches its individual target end users. Organizational websites have become the key information provider to the society.

By putting the understanding in to practice, *<Organization Name>* commenced developing/revamping website to deliver government services to citizens in the most effective and proficient manner.

Since it is one of the most convenient mechanisms to access more information regarding the services provide by government organizations, *<Organization Name>* intends to initiate a project aiming the implementation of multiple website developments and revamping.

### **3.** Concise statement of the objectives

<*Organization Name*>intends to procure and obtain the services of a consultancy firm to implement a website for a Government Organization. The consultancy firm is required to gather requirement, design and develop websites and ensure that up to date and accurate information are available in all three languages while conforming highest standards align with government web standard.

#### 4. Scope of Work

4.1. *<Organization Name>* intends to develop a website for the government organization and in order to provide support to the respective organization for maintenance and updating the sites through content management tools.



- 4.2. The Consultancy firm shall study the main functions and services provided by the mentioned Organization to understand its scope of work and identify the key stakeholders of the Organization.
- 4.3. The Consultancy firm shall educate and create awareness among the officials of the organization on useful features that could be used for information dissemination through the Internet.
- 4.4. With the understanding of the scope consultancy firm is required to identify and design the Content collection matrix in all three languages.
- 4.5. The Consultancy firm is required to work collaboratively with the Content Management Team (CMT) of the government organization in obtaining and finalizing the content.
- 4.6. The Consultancy firm shall design the websites based on the requirements of the assigned government organization and as per the government web standards.
- 4.7. The proposed design shall facilitate the content management requirements of organization to add information and services incrementally as and when those become available.
- 4.8. The Consultancy firm shall design the website structure and finalize the information architecture of the website for providing information and services in all three languages (Sinhala, Tamil and English) and obtain the acceptance from CMT.
- 4.9. The Consultancy firm required to write website content and translations if necessary. (In three languages: Sinhala, Tamil and English). Such shall be identified at the requirement gathering stage.
- 4.10. The consultancy firm shall design the website in such a way that website follows user friendly workflows by adhering to Government web standards.
- 4.11. The Consultancy firm is required to get the advice of ICTA in designing the website of prospective government organization. Developers are free to propose a design aligned with the requirements gathered and with the government web standards.
- 4.12. The Consultancy firm is required to use an Open-Source Content Management System Tool (CMS) for the proposed web site in order to provide the CMS support for ALL pages. (i.e., Joomla, Drupal or Word Press)
- 4.13. The overall style of the proposed website and look and feel need to be aligned with the context of the Organization, preserving its esteemed image.
- 4.14. The total number of pages for a certain website will be determined by the relevant government organization.
- 4.15. The Consultancy firm should adhere to the World Wide Web (W3C) standards and latest version of Government web standards.
- 4.16. If any small scaled eservice components to be developed, the database handling software shall be open-source and compatible to the platform Used (To develop the backend databases to



support content management). Such shall be identified and decided at the requirement gathering phase

- 4.17. The Consultancy firm is required to provide training to the staff of the respective government organizations over the developed website. The training shall include but not limited to following;
  - Content management tool
  - Content management in all three languages
  - Management of the small scaled eservice wherever applicable
- 4.18. Respective government organization is supposed to provide the content in all 3 languages (English, Sinhala and Tamil) and is required to provide the content in at least in one language. Although in case of inability to provide the content in all 3 languages the consultancy firm is required to provide the translation facility (this need to be identified at the requirement gathering session)
- 4.19. Key consultants are required to be available on-site as and when necessary.
- 4.20. All consultants are required to sign a Non-Disclosure Agreement (NDA) where applicable.
- 4.21. The Consultancy firm required to provide soft copies of all source codes, databases, Content Management tool, graphics, design documentations and other related documents used in the website to the respective public sector organization.
- 4.22. The Intellectual property rights relating to the graphics, photos (captured by the photographers), text, artwork, design, sound recordings, software, database, and any other components developed for this project by the consultant shall be the property of the Organization and shall have the right to transfer such rights to the community it prefers.
- 4.23. If any proprietary software components belonging to the consultant shall be licensed to the Organization for perpetual use. The consultant shall require making appropriate arrangements to make available the source code of the said proprietary software to the client in the event of either bankruptcy or winding of merger of the consultant company.
- 4.24. Content Management Tool's credentials (including super user credentials) and File Transferring Protocol (FTP) credentials should be handed over to the Organization after signing off the website. The passwords can be obtained from the Organization during the maintenance period.
- 4.25. The Consultancy firm should impose the copyright and declaimer notice as specified by the Purchaser.
- 4.26. All confidential information exchanged during the assignment should not be disclosed by the consultant to a third party.
- 4.27. The consultancy firm shall guarantee the Quality Assurance of the whole website in all aspects.
- 4.28. The consultancy firm shall describe the Quality Assurance approach in detailed Methodology.



- 4.29. The consultancy firm shall implement all necessary security measures and adhere to the security measures proposed by Sri Lanka Computer Emergency Response Team (SLCERT) for ensuring the security of the website where the website should be immune to the exploitations (Refer Government Web Standards)
- 4.30. The consultancy firm shall purchase the SSL certificate as prescribed by *<Organization Name>*and for 3 years on behalf of the organization.
- 4.31. The consultancy firm required to manage and maintain the website for a minimum of one (1) year period time from the date of the website development sign off.

### 4.31.•.1. Maintenance

- 4.31.•.1.1. Following services should be provided by the consultant for a period of one (1) year without any additional cost. Manage and maintain the website for a one (1) year period from the date of acceptance letter (sign off) issued by Content Manager of CMT.
- 4.31.•.1.2. The consultancy firm shall manage the website development for a period of twelve months from the date of launch of each website adhering to a Service Level Agreement. Support Level for this assignment is "Medium" [Refer Annex 03]
- 4.31.•.1.3. Government Organization is able to extend their maintenance period by signing a contract agreement between them and the web development company by ensuring the providence of the payment for maintenance cost for the required period of time.
- 4.31.•.1.4. Updates requested by the Organization should be uploaded within 24 hours of receiving the information.
- 4.31.•.1.5. The web developer should submit a report at the end of each month during the maintenance period covering the following areas.
  - a. No of visitors location based
  - b. No of hits to all pages
  - c. Visitors' previous link
  - d. No of downloads for different articles
  - e. No of payments
  - f. Isolated, static, missing and incomplete pages
- 4.31.•.1.6. Consultancy firm shall provide Helpdesk support to user in updates and contents management for one (1) year period from the date of signoff.
- 4.31.•.1.7. Consultancy firm shall upgrade Open-Source Content Management System version and resolve all such issues that may arise due to upgrading such as content alignment, security etc. during the maintenance period.
- 4.31.•.1.8. Attend to all types of Corrective maintenances (Bug fixing and installing of security patches). If user discovers any error/failure in the website, web



consultant should respond and rectify immediately. Meantime to Response (MTR) should not exceed one hour and Mean Time to Resolution should not exceed 24 hours from the time of being informed. Notification of errors/failures should be possible through email, telephone, and fax or in letter format.

## 4.31.•.1.9. The Consultancy firm required to fulfil the following requirements.

- a) Ensure the website is up and running.
- b) Documentation and technical support
- c) Add new paragraphs, text to the existing webpage (ex: address changes, telephone number changes etc.).
- d) Insert new photos, images, to the body of the pages.
- e) Adding, Removing and updating hyperlinks.
- f) Insert new colour schemes to the web pages.
- g) Insert new menu items to the existing menus.
- h) Include hit counters, last modified dates etc.
- i) Uploading new pages to the server.
- j) Minor modifications to the webpage banners.
- k) Train and guide the Organization for generating statistics on the website.
- 1) Provide technical support to the Organization to change the server location where the website is already hosted.
- m) Adding new pages should be done according the predefined cost breakdown which is unit cost based

#### 5. Preferred qualification for consultants

The consulting firm should have the suitable resource persons for the following position in this project with relevant qualifications and experience.

Key Professional Staff	Academic	Experience in the <u>Proposed</u> <u>Role</u>	Experience in proposed role/ Open-source website development
Project Manager	B. Sc in IT or equivalent	3 years	Yes
Web Developer(s)	B. Sc in IT or equivalent	3 years	Yes
Software Engineer	B. Sc in IT or equivalent	3 years	Yes
UI Engineer	Diploma in IT or equivalent	2 years	Yes
QA Engineers (s)	Diploma in IT or equivalent	2 years	Yes
SEO Consultant	Bachelor's degree/adequate professional	2 years	Yes



qualifications or	
equivalent	

## 6. Work Schedule

Project duration shall cover a maximum ceiling of 3 months including requirement gathering, designing, developing and hosting of websites.

Consultancy firm is required to submit the following list of deliverables during the project.

No	Deliverables	Phase	Payment % of Total Payment
5.1	<ul> <li>5.1.1 Website development Proposal</li> <li>5.1.1.1 Website navigation structure</li> <li>5.1.1.2 Finalized Website design</li> <li>5.1.1.3 Number of person days of the assignment</li> <li>5.1.1.4 Website development schedule</li> <li>5.1.1.5 Search engine optimisation (SEO) and Quality Assurance (QA) Plan</li> </ul>	Inception	30%
5.2	5.2.1 Website prototype	Elaboration	10%
5.3	<ul><li>5.3.1 Complete full functional English, Sinhala, Tamil versions of website</li><li>5.3.2 Successful UAT acceptance</li></ul>	Construction	30%
5.4	5.4.1 IS Audit Approval by SLCERT (or any other party recommended by SLCERT)	Construction	10%
5.5	<ul><li>5.5.1 User/administration manual of the website</li><li>5.5.2 Government organization level training over the provided web solution</li><li>5.5.3 Website hosting confirmation</li></ul>	Transition	20%
5.6	5.6.1 Quarterly website management report	Web solution support & maintenance	Quarterly management cost as per the agreed percentage

# 7. Services and Facilities Provided by ICTA

The Organization will provide the following facilities to the development team.

- A. Arrange meetings with relevant end users and senior managers of the assigned organizations, if the need arises;
- B. Issue an introductory letter, co-ordinate and arrange all appointments / meetings with the stakeholders.
- C. ICTA will provide web hosting solution which includes web servers and database servers for hosting the web sites.



Other than above listed facilities, no facilities whatsoever will be provided to the successful bidder by the Client.

# 8. Review Committees and Review Procedures

All versions of deliverables will be reviewed by the Review Committee.



# [ANNEX 1]

# SERVICE LEVEL AGREEMENT

## **1.** Introduction

The aim of this agreement is to provide a basis for close co-operation between the Client and the Consultant for support and maintenance services to be provided by the Consultant, thereby ensuring a timely and efficient support service is available. The objectives of this agreement are detailed in Section 2.

This agreement is contingent upon each party knowing and fulfilling their responsibilities and generating an environment conducive to the achievement and maintenance of targeted service levels.

## 2. Objectives of Service Level Agreements

- **1.** To create an environment conducive to a co-operative relationship between Client, Consultant and Client's representatives (government organizations) to ensure the effective support of all end users.
- 2. To document the responsibilities of all parties taking part in the Agreement.
- **3.** To define the commencement of the agreement, its initial term and the provision for reviews.
- **4.** To define in detail, the service to be delivered by each party and the level of service expected, thereby reducing the risk of misunderstandings.
- **5.** To institute a formal system of objective service level monitoring ensuring that reviews of the agreement is based on factual data.
- **6.** To provide a common understanding of service requirements/capabilities and of the principals involved in the measurement of service levels.
- **7.** To provide for all parties to the Service Level Agreement a single, easily referenced document which caters for all objectives as listed above.

#### **3.** Service Level Monitoring

The success of Service Level Agreements (SLA) depends fundamentally on the ability to measure performance comprehensively and accurately so that credible and reliable information can be provided to customers and support areas on the service provided.

Service factors must be meaningful, measurable and monitored constantly. Actual levels of service are to be compared with agreed target levels on a regular basis by both Client and Consultant. In the event of a discrepancy between actual and targeted service levels both Client and Consultant are expected to identify and resolve the reason(s) for any discrepancies in close co-operation.

Service level monitoring will be performed by Client. Reports will be produced as and when required and forwarded to the Consultant.

## 4. Support Levels

The consultant must provide support and maintenance services during Support Levels mentioned below;

#### Support Level: Medium



Component/Service For front-end portlets and supporting back-end applications (web services, etc. deployed at Lanka Government Cloud (LGC) and mobile app stores)
 Support Hours: From 08:00 AM to 05:00 PM, all days in the week

# 5. On-Call Services Requirements

Consultant MUST make at least ONE qualified personnel available to the Client by telephone and email for the reporting and resolution of non-conformities or other issues, defects or problems. Dedicated telephone numbers and emails should be available for reporting issues. Client will nominate the personnel who are authorized to report non-conformities or other problems with the system from the departments. Reporting of non-conformities includes requests by the Client to apply critical software updates or patches.

Table-1 shows the response priority assigned to faults according to the perceived importance of the reported situation and the required initial telephone response times for the individual priority ratings. All times indicated represent telephone response time during specified Support Levels. The indicated telephone response time represents the maximum delay between a fault/request being reported and a consultant's representative contacting the Client by telephone. The purpose of this telephone contact is to notify the Client of the receipt of the fault/request and provide the Client with details of the proposed action to be taken in respect of the particular fault/request.

Support Level	Business Critical	Business Critical	Non- Business Critical	Non- Business Critical
	Fatal	Impaired	Fatal	Impaired
High	60 minutes	90 minutes	90 minutes	120 minutes
	within Support	within Support	within Support	within Support
	Hours	Hours	Hours	Hours
Medium	120 minutes	150 minutes	150 minutes	180 minutes
	within Support	within Support	within Support	within Support
	Hours	Hours	Hours	Hours

Table-1: Response Priority

Note:	
Fatal	- Total system inoperability
Impaired	- Partial system inoperability
<b>Business Critical</b>	- Unable to perform core business functions
Non-Business Critical	- Able to perform limited core business functions

Consultant notification can occur outside Support Level time, and thus the response may occur after the next Support Level begins. Furthermore, "Time to Arrive On-Site (Table-3)" starts from Support Level starting time and "Time to Resolve the Problem" is Support Level time starting from the actual time of arrival on site.



# 6. Problem Resolution and Penalties

If problems have not been corrected within two (2) hours of the initial contact, the Consultant shall send qualified maintenance personnel to the respective Client's site to take necessary actions to correct the issue reported (defect, problem or non-conformity).

If faults are not corrected within the time limits specified in the Table-2, the Client shall be entitled to a penalty payment for each hour that the Consultant fails to resolve the fault.

Maximum ceiling of penalty for a given month is 10% of the monthly support and maintenance price.

Support Level	Business Critical	Business Critical	Non- Business Critical	Non- Business Critical	
	Fatal	Impaired	Fatal	Impaired	
High	6 Hours LKR 5,000.00 per hour	10 Hours LKR 3,000.00 per hour	10 Hours LKR 3,000.00 per hour	15 Hours LKR 2,000.00 per hour	
Medium	ium LKR 5,000.00 LKR 3,000.00 LK		12 Hours LKR 3,000.00 per hour	20 Hours LKR 2,000.00 per hour	

The time to arrive on-site is specified in the Table-3.

Support Level	Business Critical	Business Non- Critical Business Critical		Non- Business Critical	
	Fatal	Impaired	Fatal	Impaired	
High	Not applicable	Not applicable	Not applicable	Not applicable	
Medium	2 Hours	3 Hours	3 Hours	5 Hours	

Table-3: Time to arrive on-site



# **ANNEXURE E3**

# **TECHNICAL COMPLIANCE SHEET**

# **Bidder shall fill the Compliance sheets of the Development of the Official Website.**

Item No.	Minimum Specification		<b>Bidder's</b> Offer (Please specify details)	Compliance to the specification (Yes / No) If "No" bidder's response	Technical reference (Please specify the page number)
1. Fur	ctional Requirem	ents			
		1.1.1Is Unicode compatible1.1.2Should contain file repository which will contain electronic media.Example – Pdf, eBooks			
		etc. 1.1.3 Search function			
1.2	User Management & Administration	<ul> <li>1.2.1 Configuration management</li> <li>1.2.2 Dashboard for monitoring application status</li> </ul>			
		1.2.3 Manage user roles1.2.4 Create/Edit/View &Delete Users			
1.2		1.2.5 Activate / Deactivate Users			
		1.2.6 Create/Edit/View & Delete Criteria			
		1.2.7 Create/Edit/View and Delete Events			
		1.2.8 User Privilege / Role based Access Management			
1.3	Content Management n-functional Requi	1.3.1 Content Publish / Unpublished option1.3.2 Facility to update Modules/Articles and			
		Menus 1.3.3 Update plugins /Patches (CMS verified)			
2. INUI	i-iuncuonai Kequ				



-	1			1
2.1	Security	2.1.1 security mechanism in and out of the website to safeguard the privacy and the confidentiality of the information.		
2.2	Usability	<ul><li>2.2.1Flexible &amp; user- friendly modular design</li><li>2.2.1 Responsive - should be viewable on any computing device.</li></ul>		
2.3	Extensibility	2.3.1Ability to easily incorporate new functionalities		
2.4	Confidentiality and Integrity	2.4.1 The developed website should ensure "confidentiality" and "integrity" whenever required (i.e.: HTTPS)		
2.5	Authentication	2.5.1 Should be able to verify the users.		
2.6	Authorization	2.6.1 Should be able to verify that only allowed users have access to resources.		
2.7	Interoperability	2.7.1 The web application should be able to view in standard compatible web browsers.		
2.8	Maintainability	2.8.1 The code should be properly documented with appropriate comments and no complex codes (highly cohesive and loosely coupled) to do modifications such as corrections, improvements or adaption.		
2.9	Compliance to standards	2.9.1 Should be standardized by following web/mobile standards like W3C.		
2.10	Languages	2.10.1 content in Sinhala, English and Tamil (in Unicode). The website should be able to view in a usable manner in all three languages in any computing device.		
2.11	Extensibility	2.11.1The website should be designed and developed in a way that it can cater to future business needs.		



3.	External interfa	ces	
	Device	3.1.1 PCs / Notebooks /	
3.1		Tabs / Mobiles and other	
	Compatibility	portable devices	
	00	3.1.2 MAC / Windows /	
	OS	Linux / IOS / Android /	
	compatibility	etc.	
		3.1.3 Cross-Browser	
		Compatibility with latest	
	W7-1-1	versions of Safari, Internet	
	Web browser	Explorer, Firefox, Chrome,	
	compatibility	Opera etc. Preferably	
		without installing	
		additional plug-ins.	
4.	Other Attributes	5	
		4.1.1 Helpdesk Support	
		1 11	
		4.1.2 Product	
		customization	
	Maintenance	4.1.3 Patches and upgrades	
4.1	and Support	4.1.5 T ateries and upgrades	
	services		
		4.1.4 Incident Response	
		4.1.5 Issue Escalation	
		4.2.1 Enhance the website	
		to reach top positions in	
12	Search Engine	the relevant search engines	
4.2	Optimization	ensuring long lasting,	
	_	ready to spend traffic over	
		sustained periods of time	
5.	Design Constrain	ts	
		5.1.1 Adhere to	
	System Architecture & Design	Government web standards	
5.1		5.1.2 Adopting Secure	
		Systems development	
		practices	
		5.2.1 Quick & easy	
		navigation	
5.2	III & Viewing	5.2.2 GUI language	
	UI & Viewing options	support for Sinhala, Tamil	
		and English in Unicode	
		5.2.3 Usage of UX Best	
I		Practices	
5.2	Systems	5.3.1 Database	
5.3	Administration	maintenance	



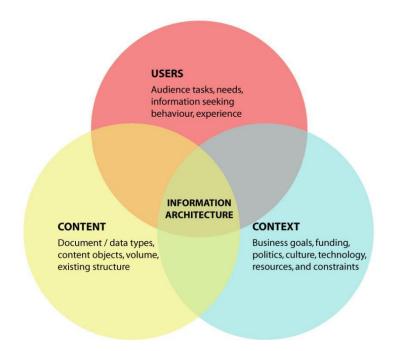
		5.3.2Backups and restoration	
		5.3.3 Audit trails	
5.5	Product personalization and localization	5.6.1 Ability to incorporate organization' specific requirements	
6.	<b>Configuration Su</b>	pport	
6.1	Web Application Configurations	6.1.1. Support for the initial configuration of the web application is inclusive with the solution	
7.	Training Require	ments	
7.1	User Training	7.1.1 Should provide comprehensive user and admin training	
7.2	User Manual	7.2.2 Should provide a comprehensive user manual (Sinhala, Tamil and English)	
8.	General		
8.1	Open Standards & SOA	Adherence to open standards and Service Oriented Architecture (SOA) principles. (If back- end application is developed)	
8.2	Releases	Adopt a proper application release procedure to release the Website	



### **ANNEXURE F**

# INFORMATION ARCHITECTURE AND CLASSIFICATION

Information architecture is a part of interaction design that considers content, context, and users. This means that user needs, business goals, and different types of content must be taken into account while structuring a product's information. Usually, information architecture design falls under the care of user experience (UX) and user interface (UI) designers or an information architect. The goal of information architects (IA) is to come up with a structure and design that balances users' desires with business needs.



# **Models of Web Application Components**

There are only three models of web application components. It's closely related to the number of services and databases used for a web application. Here they are:

#### **One Web Server, One Database**

A peculiarity of this server is that it uses a single server as well as a single database. It makes this model the least reliable out of the three. Once the server goes down, so does such a model. Hence, this model is not commonly used for building web applications.

Nevertheless, it's quite often used to run test projects and learn and understand the web application's fundamentals.

# Multiple Web Servers, One Database

This model of a modern web application design has quite an interesting feature: it doesn't store any data. When a client gives information to the web server, it processes and writes it to the database, but managing this data takes place outside of the server. It's called stateless architecture.



To operate this model, developers need at least two web servers. It's essential for making the model more reliable because if one server goes down, another one will take charge. So, in such a failure, all the requests will automatically go to the new server, without affecting the web app's functioning. Thus, this model is more reliable than a single server. However, if something happens to the database, the app will crash.

# Multiple Web Server, Multiple Databases

This is the most efficient and reliable web application model. The reason is that both servers and databases have multiple substitutions. So, in case of failure, there are two way-outs: to store data in all the accessible databases or distribute it evenly among them. Anyway, the web site will be safe and sound.

However, if you decide to distribute the data, it may happen that some data may become unavailable. But this scenario describes a database's crash/unavailability.

#### **Application Services**

Above, we mentioned three so-called "Monolithic" models due to their server's rigid and stable nature. In contrast, application services (microservices and serverless) tend to be agile since they simplify upgrades and scaling. Applying this model allows splitting up web servers into smaller parts: 'services' in microservices and 'functions' in serverless. Thus, modifying and scaling independently using each of them is easier.

#### **Types of Web Application Architecture**

However, the line between the frontend and backend development has blurred, web application works with them both. Let's go into their types separately.

### **Frontend:**

#### **Single-Page Application (SPAs)**

Single-Page applications or SPAs aim to facilitate programmers' work. To make an action on a website, a user has no need to load completely new pages every time. Instead, they can interact with it by receiving updated content to the current page.

This type of architecture web design is created in such a way that it requests the most necessary content and data. Thus, SPAs prevent interruptions into user activity to boost an intuitive and interactive user experience. By the way, JavaScript is the most common programming language in this type of architecture.

#### Server-Side Rendered Application (SSR)

SSR is the process of rendering a client-side Javascript framework website to HTML and CSS on the server. With the help of this tool, it's possible to quickly deliver the most important assets, thus accelerating the browser's speed rendering the page to the user takes less time.

When you build an SSR app, the server compiles all the data and serves up a new HTML document on each request. And once the browser gets the CSS, it's able to paint the UI, and it's not necessary to wait for JavaScript to load. This is how it makes the page load faster.



# **Backend:**

#### **Microservices**

Microservices is one of the types of SOA (service-oriented architecture). In general, microservices deal with small and lightweight services and execute a single functionality. This type of web architecture design is efficient and productive.

Since the microservices' components are not necessarily built with the same programming language, they are not interdependent. It means that developers are free to pick a technology they prefer, which in result, makes the microservices architecture development quicker and easier.

#### **Serverless Architecture**

From the name, you can guess that serverless architecture is the one that lacks servers. Well, it's not so. In fact, it implies that configuring and administering servers running management software is no longer a necessity. But the entire infrastructure is supported by third-party providers. A third-party provider contributes by managing the backend servers and other infrastructure.

In this type of web application architecture, an app developer consults a third-party cloud infrastructure services provider for an outsourcing server as well as infrastructure management.

#### Web Application Architecture Best Practices

A good web application architecture should be efficient and straightforward to ensure smooth web app development and maintenance. It will allow the maintainers of webapps to easily comprehend the architecture, extend, update, test, and debug.

Following are some of the principal criteria for building a reliable application architecture;

- Efficient
- Flexible
- Reusable
- Easily testable
- Solves problems consistently and successfully
- With well-structured and understandable code
- Scalable in the development process
- Have fast response times
- Doesn't crash
- Doesn't have a single point of failure
- Simple
- Adheres to security best practices and standards



# **Core Principles of an Information Architecture**

- **Clarity:** Easy to understand and navigate. Elements highlight important content and improve interactivity.
- Efficiency: Optimized workflows that help you to deliver the highest quality government websites to the public easily.
- **Consistency:** By using standard text styles, icons and interface elements, consistent government branding is achieved. This strengthens users' intuition when interacting with different government services.
- **Reusable:** Eliminate the hassle of recreating basic components and patterns for every new product.

# **Static Information Websites**

A static site is the most basic website, and the easiest to build. It requires no server-side processing, serving only client-side content in the form of HTML pages (and optionally CSS and JavaScript) to users' browsers or mobile phones.

#### **Dynamic Information Websites**

Similar to static sites, dynamic websites serve client-side content. The difference, however, is that it uses a server and database to generate such client-side content on the fly, before serving them to user devices.

# **Transactional Information Websites**

A transactional website is a full-scale website that allows users to perform transactions, for example online banking or retail purchases. Government transactional sites typically allow users to interact with government services digitally.

### Website Backup and Restoration Guidelines

Malware, ransomware, infrastructure failures, programmatic errors, malicious actors, and human errors are some common reasons why you need to back up your websites as well as databases regularly.

#### Files

These are all of the files that make up your website. They may include all pages/scripts/CSS files and images or documents, or any multimedia content that are the core part of your website. You can think of these as content which does not change; they remain as static objects. As a result, they are typically the easiest parts of your site to manage and back up.

### Database

As is likely the case, most websites use databases to store products, individual pages, or other items that are likely to be variations of duplicated content. If your database is somewhat static (i.e., most items on your site rarely change) it is relatively simple to keep backed-up, much like the files. However, if, as in most cases, this content is fluid, such as blog posts, products, transactions, or anything else that changes or is added to in a regular fashion, you will need to find a way to regularly back up this data.



### How to Backup

Backing up your site is not particularly difficult, but to begin so, you need to understand there are multiple methods. They vary by quality, reliability, and ease (depending on your skill level). It's generally a good idea to use more than one.

### 1. Through Your Web Hosting provider

Most web hosting providers provide a facility to backup hosted data through. The web host should do this internally and will typically make daily backups regardless of what you do. So, you should be able to fall back on your web host's backup if anything should happen. However, web hosts typically don't keep multiple backup versions and you're at their mercy. They will have some sort of tool for you to manually create your own backups. For example, you can easily create a full backup of your website via cPanel, a common control panel used by most web hosts.

### 2. CMS Plugins

The popular CMS, like WordPress, there are many plugins you can install, like Backup Buddy. These are very convenient and tend to be very easy to install and configure. While using third party plugins, it is required to make sure they are tested and vulnerability free.

### **3. Manual Backups**

Making a copy of all files and putting them on a removable hard drive or storing them in the cloud. This is essentially the same method that you would use with your website, with some caveats.

Of course, if you develop your website locally, and then transfer it via SFTP to your host, you technically already have a copy of your site. However, there's a key difference. If you have a database on your site, you very likely have different content locally (in your test database) than on the live site. This is especially true if you are using some sort of a CMS software (WordPress and the like). If this is the case, very nearly all of the content on your site is stored in a database and lives in no file at all, outside of the database itself.

Backing up the database is fairly straightforward, particularly if you use MySQL. You simply need to get an SQL dump of the database; which is just a plain text file that contains all the content of your database in SQL format. Once created it can simply be imported to MySQL to rebuild the database.

You are encouraged to establish automated or scripted backup mechanisms to backup your website related files and databases on a regular basis.

Please refer to this document for more information about Lanka Government Cloud (LGC) and its IaaS Operational Model to understand the backup requirements. <u>https://lgc.gov.lk/wp-content/uploads/2021/09/LGC-IaaS-Operational-Model-v4.pdf</u>



# **Best Practices for Creating a Backup Strategy**

No matter which method you choose, backing up your website should have a workflow plan. While all of the methods mentioned above will work, you absolutely will need to have a strategy in place, or any mentioned system you have could suffer some serious vulnerabilities. Make a checklist and determine answers to the following categories.

# 1. Having three backup copies

Having at least three copies of your data (one live + two backups) provides manufacturers an increased recovery rate. Included with having a higher success rate of being able to recover, having three copies of your data provides reassurance during the chance of a loss event, such as a fire, ransomware attack, data corruption, or accidental deletion, that at least one copy of business data is not affected. Several of these events often result in at least one copy of your data being destroyed.

## 2. Having backups stored on two different storage mediums

Rule number two focuses more on how the backup data is stored and what media is used to store it. Having multiple backups stored on the same storage medium can allow the opportunity that a single event will affect or destroy the multiple copies of your backup. When considering different mediums that your backups are to be stored on, manufacturers need to consider the medium's cost, the rate of data transfer to and from the medium, and the expected lifespan of the storage media.

Additionally, manufacturers should also consider where these storage mediums are to be stored, as heat and moisture can shorten the storage medium's life span. Popular storage mediums include external hard drives, magnetic storage tape (we do not suggest), iSCSI storage drives, or using a cloud environment.

## **3. Having a copy stored offsite**

Having a copy of your backup stored offsite offers peace of mind if a local event affects your business. Fires, ransomware, and insider threats can destroy locally stored copies. Offsite backup copies can include a storage facility where physical copies of backups are stored, data centres, and cloud environments managed by the backup service provider.

While having an offsite copy of your data should be considered the last failsafe for data recovery, one consideration must be identified how long it would take to retrieve the offsite data. Cloud environments offer accessibility to backups to businesses who have access to the Internet but are often extremely slow for large restores.

Backups stored on physical mediums may require the data to be packed and shipped to the data owner. Depending upon the data volume's size to be recovered, shipping recoverable data on a physical device can accelerate recovery efforts and bring your website services back online in less time.

## How often to backup

This is important. Do you want to run backups daily or monthly? You might consider the idea of running one every time there's a change to your site (new product, new blog post, etc). This is up to you, but you should make sure you have a plan in place.



### **Automated scheduling**

Following the above, setting a schedule is key. As a baseline, you will probably want to set a schedule for when backups will occur.

### Use remote storage

Whenever feasible, use a remote storage service. If the information security classification allows, you may consider using a Cloud Storage Provider.

### **Retention span**

How long do you need to keep copies of each backup? Will files from a year ago be necessary, or are they just gathering dust and can they be replaced by more recent backups?

# Encryption

Security for your backups is important, particularly if you have proprietary information (such as confidential product pricing information, or even more important, customer records). Have a plan for keeping backups encrypted & protected (AES 256-bit private key encryption and TLS/SSL transport security). Learn more about encryption.

#### **Selective Restore**

Have a procedure in place in case you don't need to restore every piece of your site. Maybe most of it is fine, but some pieces may have been lost. For instance, if one product table is damaged, you only need to replace that piece in your SQL dump. This is typically a better idea than wiping out everything to replace one file. In fact, it's a common mistake to replace everything if something goes wrong. Sure, this will work, but you will lose everything that occurred after the last backup. It's best to identify if you need to replace everything. Save full backups for a last resort if everything else fails.

#### **Restoring your website from Backup**

How do you restore your site from the backup? This is relatively straightforward. If the copy is stored as a zip file, simply unzip it and load all of the files back into their original location. Take the SQL file (the text file that was created during the SQL dump) and either recreate the database using the command-line, or if using phpMyAdmin (or any other graphical database management system like MySQL Workbench), and either import the file or copy the entire thing into an SQL window and run it.

Test it out locally, and if everything is working, then load it all back up onto the server. You should be back up and running in no time.

If you are using a professional backup service, this process will likely be even easier. Any decent service should provide you with tools for restoring your backup, be it a partial restoration or a full site restoration.

# **Backup and Restoration Policy**

It is recommended to have a backup and restoration policy signed and agreed with the business owners.

Recommended points for the Backup and Restoration policy under the ISO 27001.

- Backup Frequency
- Backup Monitoring
- Backup Storage



- Backup Retention
- Restoration Testing
- Backup off site
- RTO is Recovery Time Objective. From when the incident occurs, how long to recover.
- RPO is Recovery Point Objective. From when the incident occurs, how much data is lost.

#### **Components of Web Applications Information Architecture**

#### **Domain Name System (DNS)**

DNS or Domain Name System is a fundamental system that helps search a domain name and IP address, and in this manner, a particular server receives a request sent by a user. We can say that DNS is like a phonebook but for Internet websites.

#### Web App Servers

This component processes a user's request and sends documents (JSON, XML, etc.) back to a browser. To perform this task, it usually refers to back-end infrastructures such as database, cache server, job queue, and others. Besides, at least two servers, connected to the load balancer, manage to process the user's requests.

### **Load Balancer**

Load Balancer primarily deals with horizontal scaling. With directing incoming requests to one of the multiple web servers, the load balancer sends an answer to a user. Usually, web application servers exist in the form of multiple copies mirroring each other. Hence, the load balancer distributes tasks among them. If one web server instance goes down, the load balancer is able to safely route all the traffic to the other healthy web server instance.

#### **Databases**

The database gives instruments for organizing, adding, searching, updating, deleting, and performing computations. In most cases, web servers directly interact with the database servers.

#### **Caching Service**

Caching service provides storage for data, which allows storing and searching data. Whenever a user gets some information from the server, the results of this operation go to the cache. So, future requests return faster. In one word, caching allows you to refer to the previous result to make a computation much faster. Therefore, caching is effective when:

- the computation is slow;
- computation is likely to occur many times;
- when the results are the same for a particular request.



# **Full-Text Search Service**

Many web applications support the search by text function or so-called request, and then, an app sends the most relevant results to a user. This technology is named full-text search service. With the help of keywords, it searches the needed data among a vast number of documents.

## **Services**

When a web application reaches a specific level, services are created in the form of separate apps. They are not that visible among other web application components, but the web application and other services interact with them.

# CDN

A content delivery network, or content distribution network (CDN), is a geographically distributed network of proxy servers and their data centres. The goal is to provide high availability and performance by distributing the service spatially relative to end users.

## References:

https://uxdesign.cc/information-architecture-then-now-and-in-the-future-45a60e5a1ed1 https://www.altexsoft.com/blog/uxdesign/how-to-create-information-architecture-for-web-design/



## **ANNEXURE G**

## **GUIDELINES AND STANDARDS FOR MINIMUM INFORMATION PROVISION**

These guidelines and standards are geared toward ensuring the provision of a consistent level of information across all government websites to facilitate access to government information and services for all while ensuring transparency of operations and legal/ regulatory compliance. It is important to know what types of information can be included in a website before we venture into deciding the minimum information requirement for a government website.

#### **Types of Information in the Public Domain**

The content of a Government website is of high importance as the citizens rely heavily upon a Government website to access authentic and up-to-date information. Hence a government website ought to have the following kinds of contents:

The citizens can trust online information and services when the content provided in a government website is authentic, up-to date and consistent. Hence a government website should have the following types of information;

## 1) Primary Content

The Primary Content of a website is made up of the information the citizen/ target audience is sought primarily from a government organization or programme, which the website is designed for.

Primary content categories of a government website may include the following;

#### a) <u>About Us</u>

This refers to information about the Government entity to which the website belongs to and can include the following;

- Profile
- Mission/Vision Statements
- History/Background
- Departments/Divisions
- Role/Functions/Responsibilities/Activities
- Other Government Agencies under the Organization (if any)
- Organizational Structure
- Who's Who information on key members in the organization

This content should be reviewed frequently to ensure the information is current and accurate, especially information on Government officials of the organization which can change frequently.

## b) Profile of a Sector/Region

• Some websites will also be required to include a section on the overview of sector(s) they serve, with all the information concerning that sector presented in the website



or websites of other Government entities working in that sector. This will give a comprehensive view of the information available to the visitors.

• Some of the websites are required to publish a profile of a region e.g., National Portals should publish a profile of Sri Lanka, Province Portals should publish a profile of the respective Provinces while District websites should publish a profile of their respective districts.

# c) Programmes & Schemes

The Government organizations can have programmes and schemes directly benefiting individuals and particular citizen segments (e.g., women, physically challenged etc.) or the community at large, being implemented in different regions and sectors across the country. Information on all such programmes/schemes shall be included in this category.

These programmes/schemes could be Centrally Sponsored or can be implemented by the Province/ District Administration itself.

The following guidelines may be followed to a greater or lesser extent based on the respective Government Organization's requirement.

- i. The content submitted about schemes should be reviewed at least every quarter to ensure the content is up to date and accurate.
- ii. The complete official title of the Scheme should be reflected and should be self-explanatory. Any abbreviation in the title should be expanded.
- iii. This site should enlist all those who are eligible to receive benefits under the scheme e.g., women, children, disabled, poor etc. Also, the details of the eligibility criteria for availing those benefits should be clearly mentioned.
- iv. Information on whether the scheme entails monetary or non-monetary benefits should be given. Also, the specific non-monetary benefits that can be availed, e.g., Subsidy, training, land allotment etc.
- v. Procedure to be followed, whom to contact, supporting documents etc. for availing benefits under the scheme should form a part of this content.
- vi. Validity of the scheme must be mentioned so that the information could accordingly be moved to archives after the expiry date.

## d) <u>Services</u>

Numerous citizen services are provided by various Ministries, Departments and other Government organizations. Information about these services as well as an interface to access and use them (if it is available online) should be made available on the respective website.

i. Information on all services provided by the Government, whether fully online, partially online or available offline but whose description and details exist online can be called services. For example, if complete



details about how to apply for a birth certificate are given along with the facility to download the requisite application forms, it shall be categorized as a Service. However, just information on programmes of any Department, or access to some searchable database without any service associated will not constitute a 'Service'.

- ii. The complete title of the Service should be reflected and be selfexplanatory. Any abbreviation in the title should be expanded.
- iii. The websites should prominently display the most often used/ accessed services, so that visitors can locate and access it quickly.
- iv. The website must provide a complete description of what the service is, how it is useful for the citizens, how it can be availed, who is eligible to avail the service, who is to be contacted and during which hours. This is very important for the common citizens to understand the significance of the service and the steps to be followed for availing it.
- v. If the service is delivered online then it should be developed as a web service so that other websites and portals can access it seamlessly, subject to authorization from the Government Organization that owns the website. All on-line services should be made available through the National Portal as a 'web service.'

## e) Application Forms

Visitors to Government websites want fast, easy services 24-hours a day, 7-days a week. They do not want to wait until an organization is open for business or wait in line or on the phone to get forms and documents to avail themselves of the desired service. Therefore, all application forms existing in the public domain and meant for applying for licenses, certificates, scholarships, grants, services, information, loans, utilities etc. should be published on the respective Government website for the convenience of citizens.

- i. The title of the forms should be clearly indicated and should be selfexplanatory. The correct title would lead to an accurate search output for information on that Form and it would be easy for the users to locate it. Also, in case the Form is popularly known by a number (e.g., Form-16 for Income Statement or Form-4 for Driving license), the same should also be mentioned along with the title.
- ii. All forms should be either trilingual or should have three forms, one for each language.
- iii. The information assisting the user in filling up the application form should also be provided such as where to submit and which supporting documents to attach etc.

#### f) Acts & Rules

All Acts passed by the Parliament should be reflected on the website of the respective



Government Organization so that it can be accessed for reference. Further Rules/Subordinate legislation issued by the Organization based on those Acts should also be displayed on the website.

- i. The complete title of the Act as written in the official notification must be mentioned which should be self-explanatory and devoid of any abbreviations etc.
- ii. The 'Extent of the Act' or the scope or geographical region to which the Act applies should also be mentioned. In case it is a Central Act passed by the Parliament, the extent is normally the whole of Sri Lanka. However, the Acts passed by the Provincial Councils are usually confined to the boundaries of the respective Province.
- iii. The Commencement Date from which the Act comes into force should also be mentioned.
- iv. As far as 'Rules' are concerned their relation with the respective Acts should be highlighted as far as possible.
- v. It is required to be conscious of accessibility when compiling Acts and Rules documents in the website.

# g) **Documents/Reports**

All documents developed/published and issued in the Public Domain by Government Organizations must be published on the website. The following list gives an idea of the variety of Government documents that can be covered under this;

- Annual Reports
- Budget Documents
- Guidelines by Government
- Citizen Charters
- Census Documents
- Survey Outcomes / Reports
- Statistical Reports etc.
- i. It is recommended that this content be reviewed every quarter to ensure the content is up to date and accurate.
- ii. The complete official title of the document should be mentioned on the site. The correct title would lead to an accurate search output for that document and it would be easy for the users to locate it.
- iii. In case any reference to a document of another Government Organization is given, it should be clearly specified as with whom lies the ownership of the document i.e., which is the exact Government Organization which has produced/published/issued the concerned document.
- iv. All documents should be either trilingual or should have three forms, one for each language.



- v. It is important that if the document is valid only for a certain time period, the validity should be clearly mentioned on the site. In fact, the document should be moved to the archives after expiry of the validity period.
- vi. In case a document is large it may be broken down into multiple parts to facilitate easy download.
- vii. It is required to be conscious of accessibility when deciding on the type of format of document to be used in the website

# h) <u>Circulars/Notifications</u>

There are various Circulars/ Notifications that are released from time to time by the Government. Information about these Circulars/Notifications issued by the respective Government Organization should be made available on the related website. If Circulars/ Notifications issued by a related Government Organization is required to be given, in such instances it is recommended to link the respective Organizations official repository to the website.

- i. The official title of the Circular/Notification should be mentioned and should be self-explanatory. The correct title will also help in accurate search output for information on that circular and thus, it would be easy for the users to locate it.
- ii. The ownership of the concerned circular should be specified
- iii. If the Circulars/Notifications are valid only for a certain time period, the validity must be clearly mentioned on the site. In fact, the Circulars/Notifications should be moved to the archives after expiry of the validity period.
- iv. It is required to be conscious of accessibility when compiling Acts and Rules in the website.

# i) <u>Tenders</u>

All Government and Public Sector Procurement / Tenders/ Notifications and Public Sector Procurement/Tenders/Notifications issued by the National Procurement Commission for goods, services and works must be made available/linked through the websites.

It is recommended that people should be able to respond via the website or electronically (e.g., email, etc.).

- i. The information should include the notifications and complete documents for tenders.
- Tenders of all categories including open tenders, limited tenders, reverse auctions, auctions, work contracts, service contracts etc. should be published on the website.
- iii. All these tender notifications should be uploaded on the single entry
- iv. Outdated tenders should be immediately removed from the website and moved to archive or deleted as per the Departmental policy. If



the tenders are published through the Tenders Portal it is automatically taken care of.

v. All tender documents should be published in an accessible format

# j) <u>Recruitment Notices</u>

All Government websites should provide complete and transparent information on their recruitment policies for the benefit of those who would like to join the Government and serve the Nation. In cases where recruitment is done through some competitive examination or through a recruitment agency, it should be stated along with a link to the respective pages of those websites.

In either case, information about the recruitment should abide by the following guidelines.

- i. The title of the recruitment notice should be self-explanatory- all recruitment notices (full) should be shown on your website & recommend applications online.
- ii. This site should enlist all those who are eligible for a particular recruitment.
- iii. Also, the details of the eligibility criteria should be clearly mentioned.
- iv. All the required application forms should be made available on the website so that the interested person can download and submit the same.
- v. Procedure to be followed, whom to contact, supporting documents to be carried etc. for the particular recruitment must form a part of this content.
- vi. All currently open vacancies may be highlighted on the Homepage of the website.
- vii. The information for those recruitment notices in which the last date is over must be either removed or moved into the archives section.

# k) <u>News and Press Releases</u>

News items with national importance and significance for the citizens as well as Press Releases issued by Government Organizations should be published on the website of the respective Organization. < should be in all three languages>

News items and Press Releases must carry the date and should be organised as per the Archival Policy of the website. News and Press releases should be published in RSS and ATOM formats so that associated offices and Departments can also consume them on their websites with due permission or based on their access policy.

## l) <u>Contact Information on Government Websites</u>

Citizens should be able to contact any Government Organization to ask questions, get



information, seek clarifications and sort out problems. Therefore, it is essential that Government websites have a 'Contact Us' page which should include contact details of; different departments/sections within the organization, important officials holding specific positions, all categorized in a citizen centric manner making it easier for users to contact the relevant official with minimum effort. It is recommended to have the Government Organization's telephone numbers, fax numbers, postal address as well as email address along with the times the specified person can be contacted by the public. It should be ensured that all contact information is updated as and when changes occur. All email addresses should be regularly monitored and procedures put in place to answer the emails in a timely manner.

# 2) Secondary Content

Secondary content is generated from the assortment and packaging of primary content to suit the requirement of different audiences, events and occasions. Examples of such content are advertisements/banners/spotlight/media gallery/related sites.

# a) Special Interest Group Corner

When there is an event or occasion, the Government Organization may introduce a special section for a particular target group e. g; the time when GCE A/L results are released, a special section for students may be put up in a relevant Government Organization website.

# b) Events and Announcements

Government websites should have a section to cover various Events & Announcements such as;

- Announcements having International/National/Province level importance.
- Announcements on important upcoming Government events being organized by the respective Government Organization.
- Announcements relating to schemes/grants/scholarships/fellowships etc.
- Warnings and Advice on natural disasters/epidemics etc.
- Calls for relief funds during disasters (from citizens or civic agencies)
- Display of important helpline numbers in case of any crisis.

It is mandatory to take off / archive the announcements/ event notices off the website once it loses its relevance or after the expiry of the time period.

### c) Discussion Forums & Chat Rooms

Discussion forums are becoming an increasingly popular tool for sharing viewpoints and information. Discussion Forums could be initiated by a Government Organization on any relevant topic of public interest and can prove quite useful in obtaining opinions and viewpoints of the citizens on issues important for policy making.



# d) <u>Related links</u>

For every content topic in different modules of the website, a section should be provided for 'Related Links' to link other Government websites that can provide further details on the topic.

- i. For every Related Link, the complete URL of the Homepage/Concerned webpage should be provided correctly along with the complete title of the Website which shall appear on the screen.
- ii. The validity and accuracy of the URL should be checked on a regular basis to make sure that the information is relevant and the linked address is correct.
- iii. Related links-If a third-party website is linked- the websites should be checked for the quality of the content and should be updated regularly. There should be a procedure to ensure that the list of links is compiled in a fair manner.

# e) <u>Spotlight</u>

The website may have a section called 'Spotlight' which focuses on a certain issue of importance and brings it into the limelight.

# 3) Tertiary Contents

Information on the "primary" and "secondary" content forms a part of the tertiary content and includes the following information;

- About the site i.e., Department that is responsible for the content as well as the maintenance of the site, what is the purpose behind the development of the site, when was it launched, where is it hosted etc.
- Navigation Aid Sections such as Online Help, Site Map, and Search
- Terms and Conditions with respect to the usage of content on the site. This shall include policies on Copyright, Privacy, Legal Implications etc. as well as Content Disclaimers.

# a) <u>'Frequently Asked Questions' or FAQs</u>

A detailed list of answers to common questions can prove highly useful to the target audience of the website. Also, it has been proved by usability studies that information presented in a 'question-answer' form is much easier for people to understand than lengthy write-ups. Therefore, it is recommended that all Government websites, particularly ones having frequent interaction with citizens for various services should have a 'Frequently Asked Questions' module linked from the Homepage and all other relevant places in the site.

The CMT can compile a list of commonly asked queries and their answers based on the following sources; emails, phone calls and letters received from the public, surveys conducted among the public, feedback from employees directly answering queries from the public and website usage statistics, top search terms etc.



## b) <u>Help</u>

The 'Help' section on the homepage includes the kind of content which allows for easy and convenient navigation for users of the website (e.g., online help, how to open files of certain formats, how to access audio/video on the portal, kinds of plug-ins required etc.). Further, the content which clarifies the purpose of the website as well as its policies for the visitors should also be included in this category.

## c) **Downloads and Plug-ins**

Downloading material from the Internet can be an expensive and time-consuming exercise. Therefore, the Government websites should provide Information that will help visitors determine whether they want to access downloadable material. This information should include; Self-explanatory titles of the documents/files, download and use instructions (install, open, view etc), file formats & file sizes, size of downloads (the total size of a downloadable file should be minimized to enable users who doesn't have high speed reliable internet connections to use the content), whether downloading content is virus free.

## MINIMUM INFORMATION REQUIREMENTS FOR A GOVERNMENT WEBSITE

Having comprehensively described the types of information to be included in a website above, we would like to note the following minimum information that should be available in a government website.

#### a) The home page:

The home page of a website is the primary entry page to the entire content of the website. It is recommended that the homepage has an option for selecting the language the user prefers to browse the website in. Once selected the home page will present the information in the selected language.

It is vital that the visitors to the website get to access the most important content elements from the Homepage itself. The home page should ideally carry;

- Name of the Government Organization (alternatively, the name of the Project, Service etc. as applicable).
- Organization's Logo
- Government Logo- only certain organizations have the authority to use this logo- therefore it is recommended to check on the related regulation before using it in your website.
- About the Organization which includes main activities & functions performed. The 'About us' page can have sub sections, such as;
  - Overview a brief description of the organization, its history, legal mandate, vision, mission, goals, objectives, subjects and functions handled.
  - Departments within the Organization



- Organizational structure a graphical image defining the organization hierarchy.
- Who's Who information on key members in the organization
- Cadre (optional)
- Service directories or programme details
- Description of services provided, opening hours (where relevant), service delivery points, method of obtaining services, contact information, payable fees (if any) etc.
- Link to all the major modules/sections of the site.
- Link to all the citizen services offered by the Department.
- Link to the 'Contact Us' page of the website.
  - Provide sufficient details (Department-wise) to enable contact with the relevant head office and sub offices from anywhere in the world by letter, phone, fax, email or in person.
  - Links to the relevant Minister's contact information and portfolio responsibilities.
  - A mode by which to contact the website content owner or administrator.

Related information - Link to the National Portal (www.gov.lk with gov.lk icon)

Updates on situations of national importance; disasters or pandemics (such as Covid-19) with rules, guidance and support.

- Search/Site Map.
- Terms and Conditions of Use.
- eServices attention can be given to any service (eService) which the user can obtain through the website via banners, marquees, scrolling contents, frequently changing contents etc.

# b) Minimum Content on Subsequent Pages:

Apart from the Homepage, the subsequent pages of the website must have the following minimum information, in addition to the main content.

- Self-explanatory title of the page.
- Link to the Homepage.
- Link to the parent section/top module of the individual page.
- Ownership (name of the Department owning the website).
- Link to the name of the Department
- Last Reviewed / Updated date.

# c) Legal Statements:

# i. Copyright Policy

Copyright is a form of protection provided under law to the owners of "original works of authorship" in any form of media. It is implied that the



original information put up on the website by a Government Organization is by default a copyright of the said organization and may only be copied, reproduced, republished, uploaded, posted, transmitted or distributed if the copyright policy of the concerned Organization allows it. Having said that, it is the duty of the Government Organization to provide all the information in the public domain freely (non- confidential information) to the citizens and should allow provision for this in their Copyright Policy.

If any published Government Document/Report is being reproduced on any website, whether as excerpts or in full, the source of the same i.e., full title of the report/document along with the name of the respective Organization and year of publication should be provided.

## **Copyright Statement**

Every website should include a statement identifying the copyright owner, and what use they may make of the content. Providing such a statement gives notice to visitors that your website belongs to the organization and that they cannot copy the content without your permission.

A sample Copyright notice is given as an Annexure in this document (Ref. Annexure D2) for your reference. It is vital that the approval of the respective Government Organization's Legal Department is received prior to publishing any such legally binding statements in the website.

## ii. Content Hyperlinking

Cross linkages between different websites can cause ambiguity in the minds of the visitors about the ownership of a particular portion of content and whom to be contacted in case of any query. Also, many a times, there could be a difference in the security domains of two linked websites. Hence, it is important to notify the visitors when they are leaving a particular website through a hyperlink and entering another one. Clear indications should be given when leaving the Government site for a non-Government website.

#### Indication of leaving the Government Website

"This link shall take you to a page outside the (website URL). For any query regarding the contents of the linked page, please contact the webmaster of the relevant website."

In order to create a visual distinction for links that lead off site, Cascading Style Sheets (CSS) controls or XSL (Extensible Stylesheet Language) or some similar mechanism should be used. In case the link takes the user to another website of the same Government Organization/related Government Organization, a seamless transition should be used through appropriate CSS controls.



All external hyperlinks to any Government Organization's website should be verified and checked on a regular basis to ensure that the information being provided through these websites are up-to-date, accurate and relevant. Further, it must be ensured that errors such as 'broken links' or those leading to 'Page Not Found' are not present at any time and rectified or removed from the website immediately upon discovery.

# iii. Privacy Policy (collection of personal information, maintenance and their disposal)

In cases where a Government Organization solicits or collects personal information from visitors through their websites, it is mandatory to incorporate a prominently displayed Privacy Statement clearly stating the purpose for which the information is being collected, whether the information shall be disclosed to anyone for any purpose and to whom.

Further, the privacy statement should also clarify whether any cookies shall be transferred onto the visitor's system during the process and what shall be the purpose of the same.

Whenever a Government Organization's website allows e-commerce and collects high risk personal information from its visitors such as credit card or bank details, it is mandatory for it to be done through a sufficiently secure means to avoid any inconvenience; such as Transport Layer Security (TLS), Digital Certificates, etc.

# iv. Disclaimer notice

A website disclaimer is a legal notice that limits the liabilities that a website owner might face involving the contents of the respective website. The disclaimer must be placed in a prominent place at the footer of all Government websites.

e.g., If and when the website involves any e-payment features where electronic transactions are involved, appropriate disclaimers, worded in consultation with the involved agencies (bank, payment gateway service provider etc.) and the legal department of the respective Government Organization should be placed on the website.

A sample Disclaimer notice is annexed. Ref Annexure D3

## d) Quality of Content

The Government websites should be oriented towards their prospective audience. Intended audience of the specific Government website could be Citizens, Businesses, Government Departments as well as government employees.

Content aimed at the common public should be written in simple language so that



people from diverse professional, educational and demographic backgrounds can easily comprehend the same.

# e) Consistent Terminology

Common look and feel in Government websites of any country helps in promoting the brand image of the Government, raises user confidence, provides a user-friendly experience in navigating government websites and organizes information more consistently to facilitate searches. An integral part of the common look and feel strategy is the usage of standard content terminology, positioning and framework. Usability research has established that using common terms and placement of content can help visitors locate the information they want more quickly and conveniently.

- **Currency:** The mention of currency should be uniform across any Government website. As per international convention, any monetary value in terms of Sri Lankan currency may be described as LKR (Sri Lankan Rupee).
- **Time:** To mention time in any context, the Sri Lanka Standard Time (SLST) should be used.
- **Phone Numbers:** The format for mentioning the phone numbers should be according to international conventions (+Country Code Area Code Phone No.) and uniform across all Government websites. e.g., +94-11-2430536.
- **Date:** the format for date across all pages of Government websites should be yyyy/mm/dd (dd/mm/yyyy can also be used but mm/dd/yyyy format should never be used under any circumstances). The standard used in Sri Lanka when giving the date in English language is dd/mm/yyyy / and Sinhala/Tamil languages it is yyyy/mm/dd

## f) Archival Policy

Archived Information- past or historical information (e.g., previous laws, studies, annual reports) can be provided online via Government websites if they are relevant or helpful to the citizens (e.g., to understand how an application process has evolved over the years).

The Government websites generally are storehouses of a large number of documents and reports, which are of relevance and importance to specific audiences as well as citizens at large. Many of these documents also have historical importance and are referred extensively for academic and research purposes. These documents can be kept for online access only for a specific period of time and moved to offline archives on the expiry of a pre-decided duration. This is important since these old documents sometimes need to be referred to for regulatory or legal purposes. Government Organizations should follow the Archival Policy of the government with regard to such old documents stating for how long it would be kept online, when it will be moved to offline archives and if /when it will be permanently deleted or removed.

### g) Governance

Establish a digital governance structure to provide accountability and enforce policies and standards. Manage and fund the digital presence as an integral part of the overall communications, business and user experience strategies. Leverage the existing infrastructure, shared tools, best practices, and communities of practice, and coordinate within and across agencies to create efficiency and reduce duplication. When missions overlap, collaborate with other Government Organizations to develop cross-agency websites (portals), coordinate across government to disseminate emergency response info.



## **Do Not's**

- Government Information that is confidential or only for restricted use should be avoided on a website meant for the public.
- Government websites contain information and services for the public. Therefore, it has to be strictly noted that the Government websites should not be used to convey information specific to the Organization's employees. Information meant for the internal consumption of the employees should be disseminated through Intranets. In case for some reason, it is not possible for the Organization to develop an Intranet, the information meant for internal use may be isolated and explicitly labelled (e.g., 'for employees' or 'for internal use'), to make it clear to the public that it is not intended for them.
- Any information in text, visual or any other media which may offend/harm the national sentiments, religious communities as well as security and integrity of the Country must be avoided on the websites.