Government Digital Transformation Units

INFORMATION AND COMMUNICATION TECHNOLOGY AGENCY OF SRI LANKA

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Acronyms

CIO - Chief Innovation Officer

CDIO - Chief Digital Information Officer

ICT - Information Communication Technology

ICTA - Information Communication and Technology Agency

CDS - Canadian Digital Services

GDS - Government Digital Service (UK)

US - United States

UK - United Kingdom

List of Tables

Table 1: Organization Classification 20
Table 2: Criteria 21
Table 3: Responsibilities of the Head of Organization 25
Table 4: Responsibilities of the CDIO 27
Table 5: Responsibilities of the Technical Support Team 30
Table 6: Responsibilities of the Change Champions 30
Table 7: Way forward 31
Table 8: Timeline 32

List of Figures

Figure 1: Root cause analysis 13

Figure 2: Objectives 17

Figure 3: Structure of the Digital Transformation Unit 18

Figure 4: Approach 19

Table of Contents

Acronyms 3
List of Tables 4
List of Figures 5
Table of Contents 6
Executive Summary 7
1. Introduction 8
2. Background 10
3. Problem Statement 12
3.1. Root cause analysis 13
4. Literature Review 14
5. Proposed Approach 17
5.1. Objectives 17
5.2. Structure of the Unit 17
5.3. Approach 19
5.4. Organization Selection Criteria 20
5.5. Potential Organizations 22
6. Responsibilities of the Unit and the Individuals 24
6.1. Digital Transformation Unit: 24
6.2. Head of Organization: 24
6.3. Chief Digital Information Officer: 25
6.4. Technical Support: 27
6.5. Change Champions: 30
7. Way forward 31
7.1. Timeline 31

Executive Summary

Digital governance represents a paradigm shift in how governments around the world work. Efforts to improve public service delivery, data-driven decision-making, guaranteeing accountability, enhancing efficiency and productivity, and increasing transparency within government to build public confidence are just a few of the themes that will be explored.

The integration of public administration with ICT technology is critical to the success of digital-government programs and the leadership and support provided are critical to the successful integration of technology and governance. The transformation of government services into digital government necessitates strong and innovative technology leadership, as well as administrative management supplied by the administration.

As the government's major ICT agency, ICTA has taken several efforts toward putting GoSL's goal into action. For the people's convenience, one of the major establishments is the building of a citizen-centric digital government. To complement the GoSL mission, one of the goals is to maintain the sustainability of the organizations by building a Digital Transformation Unit in the public sector.

1. Introduction

These technology improvements create and increase the need for governments to cultivate a digitally proficient population to expand economic participation, drive economic development, and compete in the global economy.

In the private sector, a new trend has arisen for the easy accessibility of information and automation and troubled by the over costs and underused digital services. Yet the public sector has not been able to keep up with the same pace as the private sector. Further with the citizens in the country driving towards technology, knowledge and development, the public sector is forced to adopt the technology. The concept of digital government represents a change in the way governments around the world are functioning. Trying to improve public service delivery, making data-driven decisions, ensuring accountability, and increasing efficiency, productivity, and transparency within government to build public trust are a few of the aspects which will be touched upon.

The success of digital-government initiatives depends on the sustainability of technology initiatives. Successful integration of the technology with governance depends on the leadership and support provided. The public services transformation into digital government requires strong and dynamic technology leadership along with the administrative management provided by the administrative service CDIO/CIOs and other senior officials.

ICTA, as the government's primary ICT agency, has undertaken several steps toward implementing GoSL's vision. One of the key establishments is the creation of a citizen-centric digital government for the people's convenience. The goal is to develop 500 digital transformation units across all government organizations to support this digital transformation journey and ensure sustainability.

These transformation units will be built in strategically important places. ICTA will select government institutions that require transformation units with the help of the leaders of organizations. With the help of transformation units, ICTA hopes to drive the technology initiatives, accelerate the development of required skills at all organizational levels (based on the competency framework), as well as serve as an advisory team to assist the organization in making the best technology decisions possible to achieve the national vision.

2. Background

Digital transformation is a necessity for the modern enterprise, whether public or private, because of the strength and dizzying speed with which digitalization has penetrated and taken over our lives, many organizations have yet to adopt it yet.

The absence of knowledge and qualified staff, is not allowing the public sector to grasp how to cope with this digital transformation and this is the primary and most crucial reason for this state of affairs in government organizations. Yet many government services have made significant progress, and the full potential of digital adaptation has yet to be realized.
Government's interest in digital transformation to meet social standards or improve service delivery being influenced by growing demand for competitiveness, performance standards, monitoring, measurement, flexibility, a focus on results, customer focus, and control." If economies are to survive in the era of globalization, it appears that "digital transformation for governments" is no longer a choice, but a must.

ICT is being utilized to create a digital government that can assist governments with tasks and services while improving the quality of life. Digital government refers to the use of digital technology to provide public value as a part of a government's modernization strategy.

As the government's primary ICT agency, ICTA has taken several measures toward achieving GoSL's vision. One of the most important initiatives is the building of a citizen-centric digital government for the people's convenience, as well as to accelerate the cultural transition and ensure its irreversible.

ICTA's goal is to achieve 100 percent literacy in the public sector to support the GoSL vision. Hence ICTA plans to develop 500 digital transformation units across all government enterprises to support this digital transformation journey.

These transformation units will be constructed in strategic locations. With the cooperation of the heads of organizations, ICTA will identify the government organizations that require Digital

Transformation Units. ICTA believes that having a unit/team rather than relying on a single person will aid to accomplish this rapid digital transformation. ICTA intends to use the transformation units to help drive the transformation initiatives within the organizations and organizations accelerate the development of required skills at all levels (based on the competency framework), serve as the first line of support for day-to-day organizational technology issues, and empower change champions to work as evangelists to disseminate the digital transformation mindset internally and externally achieve the national vision.

3. Problem Statement

The majority of government organizations lack competent resources/teams to provide the necessary first-level support to minimize day-to-day upcoming issues that directly affect government organizations' digital transformation journey, as well as to sustainably continue digital transformation initiatives. Furthermore, no ICT leader has been selected in most government institutions to handle support for day-to-day operations as well as digital transformation efforts. Furthermore, instead of focusing on rapid transformation, government institutions are currently focusing only on operational tasks. As a result, because no dedicated staff or responsibilities have been allocated, the digital transformation will not be sustainable. As a result, organizations must establish a Digital Transformation Unit with qualified resources.

Further government organizations lack the sufficient in-house expertise to analyze private sector offerings, and given the small market of providers capable of competing for large government IT contracts, many governments signed long-term "legacy" contracts for ineffective services offered at inflated prices relative to those paid in the private sector due to outsourcing IT functions to the private sector in large or wholly.

3.1. Root cause analysis

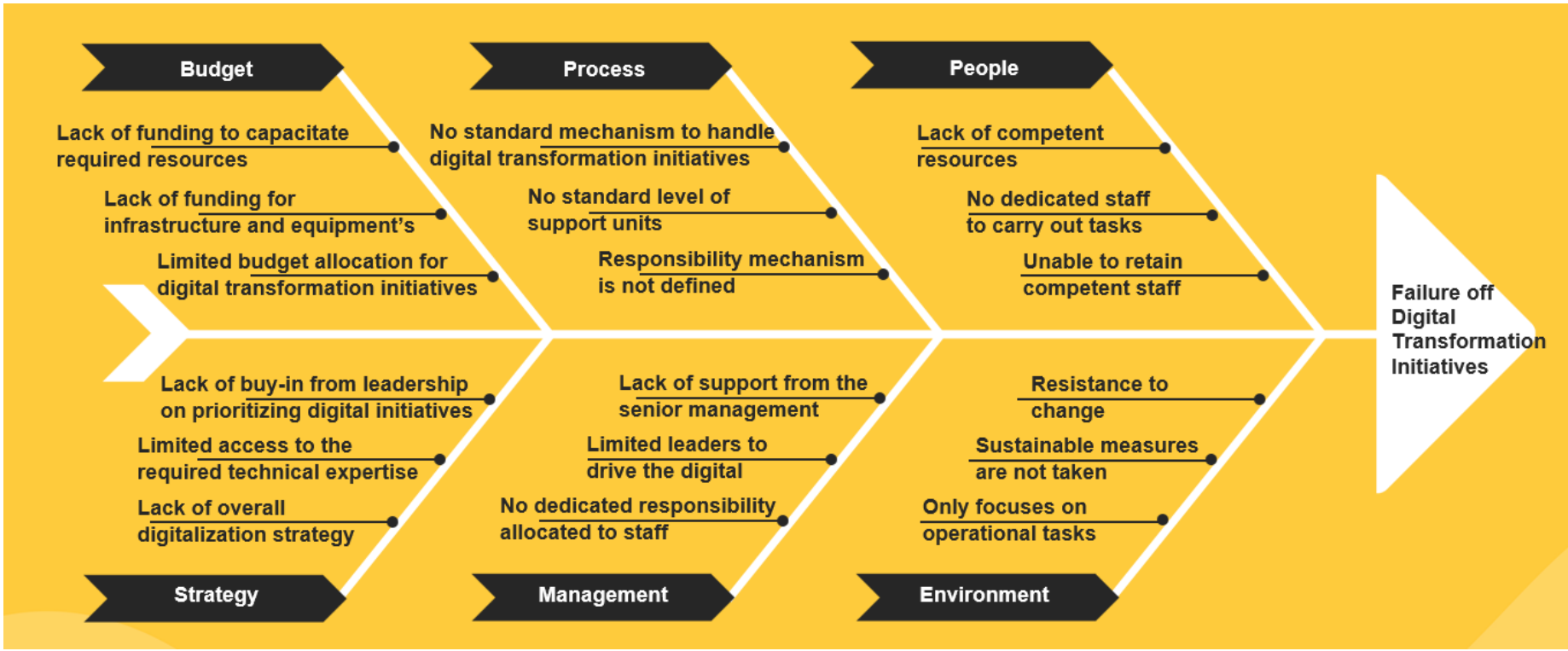

Figure 1: Root cause analysis

4. Literature Review

In the private sector, simple access to information and automation is hampered by high costs and the underutilization of digital services. Hence, the public sector has been unable to keep up with the private sector. Yet, the public sector is compelled to adopt technology due to the country's citizens' desire for technology, knowledge, and growth. The concept of digital governance symbolizes a paradigm shift in how governments operate around the world.

2011 onward governments globally have introduced specialized Digital Government Units (DGUs)/ Digital Transformation Units dedicated to digital service delivery and broader transformation of public management practices. And UK lead this journey by providing the authority to create DGU, which inspired other countries to follow. (Clarke, 2019)

- The United States, the United States Digital Service (USDS), and 18f (2014)
- Australia, the Australian Digital Transformation Agency (DTA) (initially named the Digital Transformation Office), DGUs based on GDS (Government Digital Services) emerged (2015)
- In its March 2017 budget, the Canadian government announced the development of a Canadian Digital Service (CDS), stating that the entity would be modeled after GDS, USDS, and 18f (Government of Canada 2017). Another DGU, the Ontario Digital Service, was established in 2017 in Canada's province of Ontario (ODS). (Clarke, 2019)

The UK has the longest-running most influential DTU to date.

Following are a few of the conventions adopted by the current DGUs.

- Agile, user-centered approach:
    - To see products released early as prototypes, and continually refined based on user experience.
- Procurement solution:

  - Creation of in-house solutions that prevent the need for a solution.
  - Further, these solutions will be provided by the use of open-source proprietary solutions.
  - DTUs play a role by breaking down large contracts into smaller components so that a more pluralistic, competitive marketplace of large, medium, and small suppliers can bid on government work.

- Common IT Project Management:
  - Handling siloed model IT Project Management.
  - DGUs rely on open standards and adopt 'platform-based' approaches.
  - Platform-based approaches ensure that a given digital service is interoperable and repurposable across government so that it can support a range of different public services delivered across various departments.
    - E.g.: The government-wide websites for which certain DGUs are responsible (i.e., in Australia, Ontario, and the UK)
    - Platforms for common service functions (i.e., USDS Login.gov is a platform that provides a universal login system for government services that departments can use to deliver their unique services)

- Take actions to create an exclusive space, for the staff to operate outside the constraints that limit the scope for digital innovation

(Clarke, 2019)

Important facts related to DGU's

- Sometimes staff from the DGU will be posted outside the DGU to work on specific projects and likewise, in some cases staff outside the DGU will work on the DGU initiatives.
  - E.g.: U.S, CDS and GDS (UK)

> *As 18f explains:* ***"We can embed a fully-dedicated 18F team within your agency to work hand-in-hand with you to increase your internal digital capacity, help you form new digital habits, and ultimately drive organizational culture change"***

(Clarke, 2019)

- Units are capable of attracting professional designers and product managers, two functions that have not traditionally formed part of the public sector workforce.
- DGUs typically attempt to lure talent from the private sector by arguing that working in a DGU will allow individuals to work on socially-impactful projects.
- Budget Allocation: Kept increasing due to the importance of the DGUs. Refer to Annexure for further details.

5. Proposed Approach

5.1. Objectives

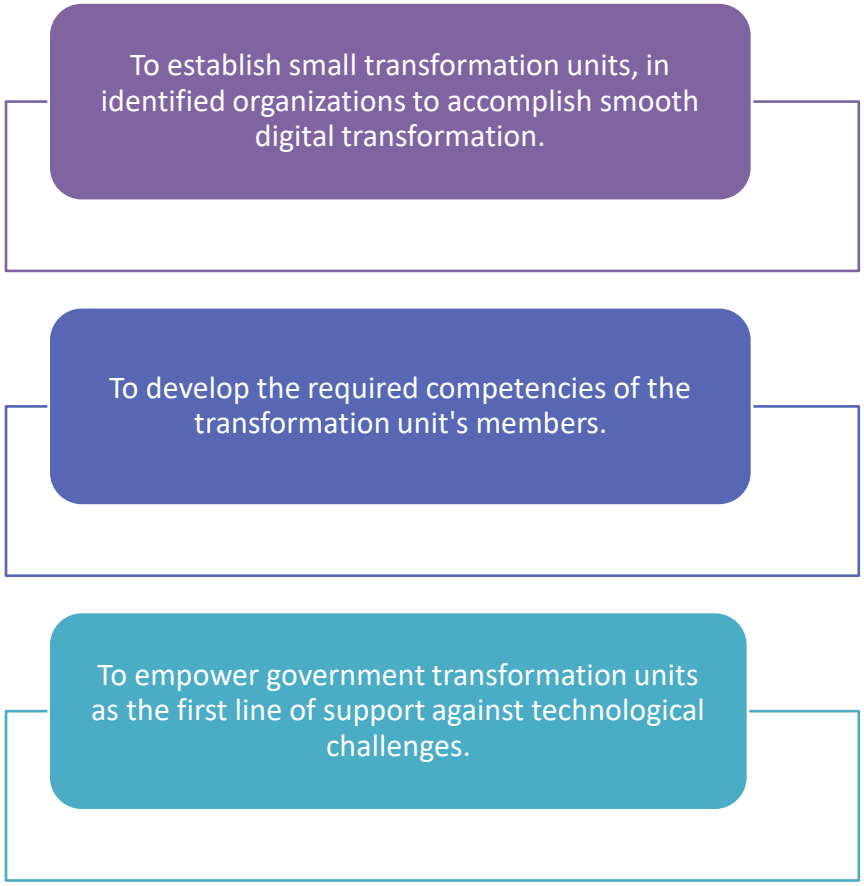

Figure 2: Objectives

5.2. Structure of the Unit

To solve the present challenge and drive digital transformation in Sri Lanka's government sector ICTA is introducing the following framework for the Digital Transformation Units.

The digital transformation units will consist of 4 components.

- **Leader:** The leader of the unit who can be the head of the organization or similar.

- **CDIO/ DTU Lead:** The person who is responsible for facilitating digital transformation initiatives. Can be CDIO or similar.
- **Technical Support:** Technical person to ensure consistent support. This can be increased depending on the requirement of the organization.
- **Change Champions:** Change champions will support the CDIO and the technical support personnel to drive the digital transformation. The number of change champions in the unit will depend on the requirement of the organization. Change champions could be adopted by the identified NextGenGov officers.

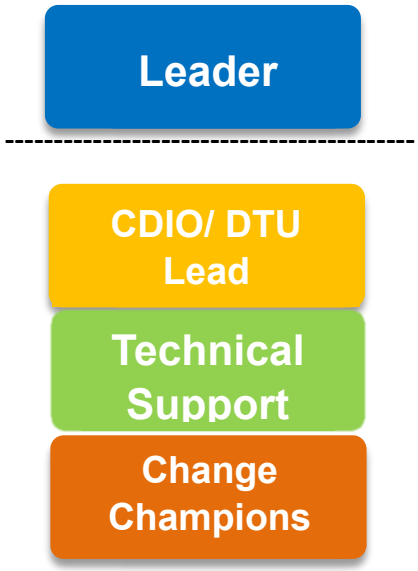

Figure 3: Structure of the Digital Transformation Unit

5.3. Approach

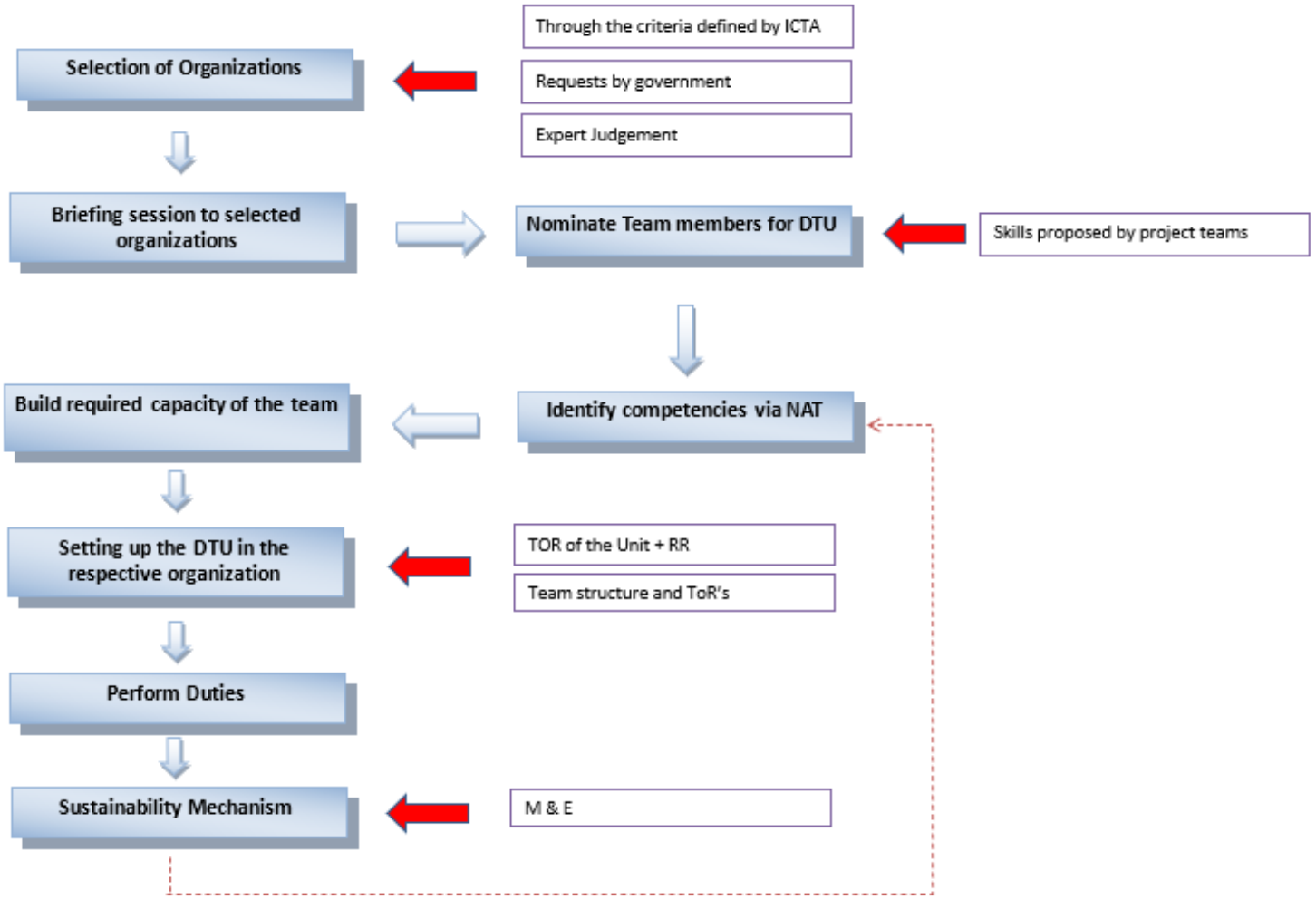

Figure 4: Approach

First and foremost, ICTA must determine which organizations require a Digital Transformation Unit. This will be done following ICTA's initiatives inside a certain organization. This might also be accomplished by obtaining nominations from the government and through expert judgment.

Then, for all of the selected organizations, a briefing session will be held. Following that, team members will be nominated for DTUs. They will be picked based on the structure and the composition indicated below as well as the organization's needs.

In addition, the selected team members must complete a Need Assessment to determine their present level of competency. ICTA will develop the unit's required competencies based on the identified competency gaps.

Then, once the Unit is in place, ICTA will take the necessary steps to ensure that the organization's digital transformation continues through M&E mechanisms.

5.4. Organization Selection Criteria

Organizations are classified according to the criteria given below.

Classification	**Organization Level**		
	Level C	**Level B**	**Level A**
Total Score	0–2 Points	3–6 Points	7-10 Points

Table 1: Organization Classification

To determine the impact based on the above classification, ICTA introduced the criterion, as shown below.

Criteria	Characteristics			Score
	0 Points	1 Point	2 Points	
Impact on Citizens	Less than 10% impact on the citizens from the total population	50% cover the respective village level and 20-60% of citizens covered the total population.	51-100% cover the respective village level and 61-100% of citizens covered the total population.	10
Impact on Government	Impact to only less than two departments in the organization and revenue is very low. No proper integration with other gov organizations.	Direct or indirect impact to 50% of internal departments and integrate with 10%-30% gov organizations	Direct impact to 51-100% inter-departments and integration capability with 31-100% organizations.	10
Impact on Business	No business impact	Moderate business impact	High business impact	10
Ongoing Digital transformation initiatives				
Project Cost	> 500,000	500,000 –1,000,000	< 1,000,000	10
Project Team Size	> 5 people	5–9 people	< 9 people	10
Departments Involved	1–2 departments	3–4 departments	< 4 departments	10
Agencies Involved	Workgroup within agency	Agency-wide	< one agency or government level	10
Time to Deliver	> 6 months to reach operational status	6–12 months to reach operational status	< 1 year to reach operational status	10
Technology	Standard, proven agency technology	Proven in industry or at the state level, but new to agency or program areas	Emerging, unproven, or new for the state	10
System complexity	Stand-alone system	Some integration with another system	The new system needs to integrate with several others, and/or they are critical systems.	10

Table 2: Criteria

5.5. Potential Organizations

	Organization	Impact on Citizens	Impact on Government	Impact on Business	Ongoing Digital transformation initiatives
1	Election Commission				Yes
2	Sri Lanka Tea Board				
3	Ministry of Education				Yes
4	Colombo MC				Yes
5	Sri Lanka Tourism Development Authority				Yes
6	Prime Minister Office				No
7	Ministry of Women & Child Affairs				No
8	Gampaha District Secretariat				Yes
10	Office of the Cabinet Ministers				
11	TVEC				Yes
12	Presidential Secretariat				Yes
13	Sri Lanka Police				Yes
14	Ministry of Higher Education				Yes
15	Sri Lanka Parliament				Yes
16	Department Samurdi Development				Yes
17	Ministry of Justice				Yes
19	Department of Wild Life Conservation				
20	Ministry of Skills Development and Vocational Education, Research and Innovation Training				Yes
21	Sri Lanka Pensions				Yes
22	Data Management Branch-MOE				Yes
23	State Ministry of wide life				
24	Inland Revenue Department, Ministry of Finance				Yes
25	Sri Lanka State Trading (General) Corporation Ltd				
26	Divisional secretariat - Mahaoya				
27	Agriculture sector modernization project-Ministry Of plantation Industries and export promotion				
29	Sri Lanka Atomic Energy Board				
30	Divisional Secretariat, Tellipalai				

	Organization	Impact on Citizens	Impact on Government	Impact on Business	Ongoing Digital transformation initiatives
31	National Water Supply and Drainage Board				
32	Sri Lanka Accreditation Board for Conformity Assessment (SLAB)				
33	Divisional Sectarian Office Raththota				
34	District Secretary Office-Galle				
35	Department of Excise				Yes
36	State Ministry of Home affairs				Yes
37	Provincial Department of Motor Traffic (PDMT).				Yes
40	Ministry of Defense				Yes
41	Public Security(police)				Yes
42	Ministry of Fisheries				Yes
43	Central Environmental Authority				
44	Foreign Ministry				
45	Ministry of Agriculture				
46	Ministry of Lands and Land Development				Yes
49	SLAASMB				Yes

6. Responsibilities of the Unit and the Individuals

6.1. Digital Transformation Unit:

- Provide required technical support and technical knowledge within the organization
- Drive digital transformation initiative
- Provide 1st level support for issues that arise in day-to-day operations
- Take ownership and resolve existing technical issues
- Provide required training for the staff as and when required
- Notify ICTA of any capacity-building training requirements
- Determine and prepare a budget, and obtain clearance from NPD or other necessary authorities.
- The transformation unit will follow the ICTA guidelines to achieve digital transformation.

6.2. Head of Organization:

Job Role	Tier in DTU	Reporting Structure	Responsibilities
Head of Organization	**Leader**		**Strategy and Leadership**
			Provide institutional leadership and ownership for the Digital Transformation Unit (DTU)
			Guide the DTU to develop ICT plans according to the digital government strategy of GoSL
			Adopt a result-oriented approach to measure the progress and success of digital transformation initiatives
			Inspire, motivate, and guide stakeholders toward a Digital Government
			Delivery and Operations
			Facilitate successful completion and delivery of digital government projects
			Remove possible impediments to the digital transformation unit

Job Role	Tier in DTU	Reporting Structure	Responsibilities
			Determine priority areas for digitalization government services
			Facilitate interoperability amongst related government organizations to implement digital transformation initiatives
			People and Culture
			Facilitate and guide change management initiatives
			Create an enabling environment to promote collaboration and partnerships
			Provide required manpower and best HR practices to support the functioning of the DTU
			Establish transparent and unambiguous communication channels to and from DTU
			Lead capacity-building initiatives enhance human capacity to deliver digital government services

Table 3: Responsibilities of the Head of Organization

6.3. Chief Digital Information Officer:

Job Role	Tier in DTU	Reporting Structure	Responsibilities
			Strategy and Leadership
			Leader of the Digital Transformation Unit
			To work collaboratively with the Head of the Organization/ leader to design and execute the Digital Strategy for the organization
			To provide strategic direction, and promote and implement digital government initiatives within the organization. (in consultation with the ICTA)
			Establish the governance framework to drive the government digitization initiatives and ensure organizational alignment with government ICT policy, as directed by the Administrative Reforms Committee (ARC), the ICT Task Force and ICTA
			Act as a focal point in digital government initiatives of the respective government organization with ICTA

Job Role	Tier in DTU	Reporting Structure	Responsibilities
Chief Digital Information Officer	**CDIO**	**Reports to the Head of the organization**	Responsible for all initiatives related to digitizing the respective government organizations
			Conceptualize, design, and execute digitization programs for the relevant organization and establish a structured mechanism to evaluate the outcomes/benefits derived from it.
			Design and execute the change management and adoption strategies to successfully implement the government's digital transformation initiatives within the organization
			Delivery and Operations
			Planning and directing new hardware and software deployments
			Ensure enforcement of relevant policies and initiatives related to the right to information, data sharing, and privacy
			Enable communication strategies through the optimum use of digital technologies
			Maintain information security measures. Functions related to access privilege, editing rights, history records, logs, passwords, internet security including firewalls, backups, and outdoor backups, virus protection, and ICT policy within the organization are included
			Responsible for the delivery of internal and citizen-facing digital services that align with organizational goals
			Lead the establishment of world-class systems and apply them to internal systems and processes to provide continuous improvement of performance
			Delivery and iteration of live operational support for live services
			Guide in protecting sensitive data, systems, and applications from external threats
			People and Culture
			Ensure inter-department coordination on ICT and serve as the organizational spokesperson on ICT issues

Job Role	Tier in DTU	Reporting Structure	Responsibilities
			To promote and adopt ICT within the organization and shall be the interface of such related programs and projects
			Make the employees aware and involved in digital government policies and initiatives.
			Responsible for building or buying digital capability

Table 4: Responsibilities of the CDIO

6.4. Technical Support:

Job Role	Tier in DTU	Reporting Structure	Responsibilities
Project Manager	**Technical Support**		**Project Management**
			Understanding the scope of the project to be worked on
			Estimating the time and resources required to fully deliver the targets set for the project
			Deliver objectives and outcomes for digital transformation projects of the organization within agreed timescales, budgets, and quality levels
			Manage multiple projects concurrently
			Lead project meetings and workshops and provide MIS reports to the Head of DTU when required
			Identify and secure resources and expertise as required to deliver the project
			Undertake detailed project planning and documentation
			Closely monitor project progress, performance, and quality, including evaluation and benefits
			Managing project risks, including the development of contingency plans
			Assessment and Feasibility
			Assess the feasibility of the projects at the project initiation phase

Job Role	Tier in DTU	Reporting Structure	Responsibilities
			Resolving obstacles and blockers that may hinder the team from doing the best job possible
			Liaison with ICTA/Head of DTU and other relevant stakeholders to ensure appropriate assessment & feasibility activity is completed
			Facilitate appropriate discussions with key stakeholders, as required
			Ensure key information including, high-level objectives, benefits, risks, dependencies, scope, resources, and costs are identified
			People Management
			Establish project teams, coordinate, provide leadership, and guide and give direction to project teams.
			Offer specialist advice to other project teams and the Head of DTU on steps necessary for project recovery
			Monitor the performance of project teams to ensure adherence to agreed timelines and quality levels
			Serving as the team's channel to higher management communicating needs and challenges
Business Analyst	**Technical Support**		Responsible for identifying business needs and analyzing business problems to define and deploy digital solutions to address the needs of citizens, businesses, and/or public officers
			Eliciting and documenting requirements
			Ensuring solutions meet business needs and requirements
			Ensure the quality of services delivered by collaborating with team members
			Provide consultative business analysis expertise to plan and assist in the implementation of technology solutions
			Perform a critical role in liaising with technology teams and internal stakeholders
			Perform tasks related to operational/maintenance projects as assigned

Job Role	Tier in DTU	Reporting Structure	Responsibilities
			Participate in the approval process of quality control solutions such as testing, acceptance management
			Defining risk factors
			Supporting the user acceptance testing process
			Monitoring deliverables and ensuring timely completion of projects
			Prioritizing initiatives based on business needs and requirements
			Facilitate change management process by advising stakeholders on the benefits of the solution to overcome their reluctance
Software Engineer	**Technical Support**		Analyze and identify potential issues based on logs
			Integrate or update existing systems seamlessly
			Perform backups and routine audits
			Install and configure new hardware and software systems
			Apply operating system updates, patches, security updates, and configuration changes
			Performance tuning of the system
			Troubleshoot, identify and resolve any reported problems
System Support	**Technical Support**		Provide 1st level IT support within the organization
			Solve common problems such as username and password issues, menu navigation, verification of hardware and software, installation issues, and setup issues.
			Monitor and maintain application solutions and networks
			Communicate to staff or clients through a series of actions, either face-to-face or over the phone, to help set up systems or resolve issues
			Troubleshoot system and network problems, diagnosing and solving hardware or software faults
			Support the roll-out of new applications
			Respond within agreed time limits to call-outs. (According to SLAs)

Job Role	Tier in DTU	Reporting Structure	Responsibilities
			Work continuously on a task until completion. (or referral to third parties, if appropriate)
			Prioritize and manage many open cases at one time
			Rapidly establish a good working relationship with customers and other professionals, such as software developers.
			Test and evaluate new technology
			Maintain a backlog of work to be done
			Root cause analysis

Table 5: Responsibilities of the Technical Support Team

6.5. Change Champions:

Job Role	Tier in DTU	Reporting Structure	Responsibilities
Change Champions	**Change Champions**		Act as a consultant, educating employees at work about the challenges the organization is facing and assisting members of the organization in taking appropriate action.
			Be observant and analyze the initiatives along with the employees' reluctance to change
			Listen and encourage employees to alter their activities, behaviors, and attitudes. People experience varied emotions as their sense of stability is challenged
			Talk to staff or clients through a series of actions, either face-to-face or over the phone, to help set up systems or resolve issues
			Understand the personal implications of people involved, and help people feel better about making the changes
			Find ways to help people change so they can successfully go through the change.
			Be an ambassador for the DTU and the Digital transformation efforts of the unit

Table 6: Responsibilities of the Change Champions

7. Way forward

Short Term	Long Term
- Determine which organizations necessitate the development of a transformation unit.	- Policy preparation to correspond with the new ICT service.
- Identification of resources based on the skill set required.	- Unit roles and responsibilities to be included in the job description.
- Determine the skills and competencies that are required.	- Formulate a transformation unit pool.
- Conduct training sessions to improve skills and competencies.	- Develop a unique reward plan for unit employees.
- Run apprenticeship programs for all levels.	- A government-to-government exchange initiative.
- Continuously monitor the progress and suggest improvements	- Run advanced-level apprenticeship programs.
- Conduct required capacity-building activities.	- Partnership programs between the private and public sectors.
- At the yearly government forum, honor the best transformation unit.	- Conduct required capacity-building activities.
	- Continuously monitor the progress and suggest improvements.

Table 7: Way forward

7.1. Timeline

Task Name	2021				2022			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Preparation of Concept Paper								
Preparation of Transformation Unit Model								
Present proposed transformation unit initiative and exciting gaps to ICTA management (CXO)								
Propose organization classification								
Propose job roles according to the DTU model								
Review job roles and agree on the unit compositions								
Established the committee to review the model								
Review the concept of Transformation Units with a committee								
Present to the relevant parties and get acceptance								

Identify 50 government organizations to implement transformation units								
Hire a service provider to adopt transformation unit to 50 government organizations and provide required training								
~~Preparation of relevant policies and laws~~								
~~Prepare Cabinet Paper and get an acceptance~~								
~~Established Digital Transformation Units~~								
Awareness and Adoption								

Table 8: Timeline