**SOEN 6841**

**Software Project Management – Assignment 1**

**17/09/2024**

**Mounika Satya Vani Gundavarapu**

**Student ID – 40306499**

**1.1 It is said that government spending on IT is increasing as government departments take initiatives to improve customer service or have a wider reach of services. Find out what factors are responsible for the increase in IT spending by government agencies. Also, list and explain the three biggest IT projects undertaken by the federal government in recent times.**

* Customer Service: Providing better service and making those available to the people requires a lot more time and resources. Since the needs of people are increasing, the government's scope of providing services is also expanding to meet their needs which requires technology.
* As far as I’ve noticed as a software Engineer working with AI tools, and cloud platforms, I’ve observed that governments are making an effort to improve the way they function in the IT sector to provide quality service delivery which requires digital services, cloud technologies, etc.

**Factors responsible for this:**

1. **Updating old systems**: It is both a waste of time and money to spend on the old systems that are no longer useful. Government agencies are still using such types of legacy systems. But by updating them they can provide quality services like health, education, and security to the public.
2. **Cybersecurity**: With the increase in technology also increases the threat to sensitive information. To protect the data government agencies need to take necessary steps to prevent breaches and safeguard the data and as a cyber defense government started investing more and more. As an example of this, the Canadian government recently passed a bill as a part of the Cyber Security Act.
3. **Customer Experience**: With no compromise in security, there is a need to make the services more user-friendly to the public. In this digital world where technology is part and parcel of life and requires heavy investment, it shouldn’t be complex to use as it is the common people who use it in their day-to-day activities.
4. **Data Analytics and AI**: Governments started investing more in AI and data analytics to enhance their services or decisions to predict the trends that will improve services like transportation, and healthcare.

**Three major examples:**

1. **Digital Services Expansion**:

* Objective: To provide more online services and improve digital usage to the public.
* Scope: This includes the creation of a website where the citizens can request any services, and permits and also get information.
* Impact: It aims to make city services more available and user-friendly and this will also reduce the unnecessary visit to the offices.

1. **Montreal 2030 Strategic Plan**

* Objective: To guide the city’s recovery and future development with a focus on economic, social, and ecological resilience.
* Scope: This plan includes four action areas: speeding up the ecological transition, promoting participation, and improving creativity.
* Impact: It aims to improve the quality of life and services for Montreal people by addressing current and future challenges

1. **Application Portfolio Management Program Modernization (APMDM)**

* Objective: The primary objective of this project is to ensure that underperforming applications and streamline them.
* Scope: Rationalization which means identifying applications that are outdated or underperforming and will decide whether to retire, consolidate, or upgrade them.
* Impact: By eliminating redundant applications the program helps reduce software licensing, maintenance, and support costs.

**References:**

1. <https://www.canada.ca/en/department-national-defence/maple-leaf/defence/2024/01/modernizing-applications-systems.html>
2. <https://www.nortonrosefulbright.com/en-ca/knowledge/publications/77cb7a90/ontario-government-introduces-new-bill-for-strengthening-cyber-security-and-for-responsible-ai>
3. <https://montreal.ca/en/articles/montreal-2030-first-strategic-plan-8318>
4. <https://montreal.ca/en/>

**2.2 Go to some open-source projects and find out about their project charters. Find out why they have those project charters**

Project Charter: It lays out for everyone who is included in the project from Contributors to project team members and others what the project is all about. It acts as a manual or a guide so that the team onboard can grasp the tasks and their goals quickly.

**OpenStack** is an open-source cloud computing platform that can store both private and public data. It is user-friendly and has a web interface which is easy to use. It documents all the information on its goals, the roles of the project teams, and the responsibilities of each member. This platform documents everything in the form of a guide on every project specifications, team guide, collaboration tools, services, etc. The charter states the details from project creation to its design and implementation followed by bugs, testing, and documentation needed for each actor in detail.

**Reason for Charter**:

1. This contains the background information of the project which tells us why we’re doing that project. The charter helps the team understand their goals clearly without creating any confusion. It defines the purpose of starting the project.

For example, in the OpenStack platform, the documentation required for the contributors includes the comments beside the code along with the proper reference as it is the responsibility of the developer to make the code more transparent by adding comments that make the user understand when and why the actions are taking place on that particular interface.

1. The clear documentation provides clarity to each actor i.e., Users, Developers, Operators, and contributors. Each of their roles and responsibilities is stated to maintain a clear, transparent understanding.

OpenStack maintains its documents for actors, if there is any failure in the task or job assigned to a particular actor for example a tester, the actor is responsible for examining the logs and finding out why it has failed. They try to determine the cause of such failure.

1. Another reason to have project charters is that it stands as an agreement or a contract between the sponsor and the project manager defining the high-level overviews of the project.

**References:**

1. <https://contribute.cncf.io/maintainers/governance/charter/>

2. <https://docs.openstack.org/project-team-guide/documentation.html>