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Service Portal For EGNC



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1. Synopsis

A service is a means of delivering value to customers or clients by facilitating outcomes they want to achieve without the ownership of specific costs and risks.

In Information Technology (IT), IT Service would mean a service provided by an IT service provider. It is made up of a combination of IT, people and processes.

Hence, this paper outlines the development and implementation of Service Portal in E-Government National Centre, for clients to request IT services provided by EGNC, in accordance to the international best practices - ITIL Version 3 (2011) guidance.

2. Introduction

2.1 Background

2.1.1 E-Government National Centre (EGNC)

Before 2008, E-Government Centre (EGC) was a division under the then Information Technology and State Store Department (ITSSD), Ministry of Finance, assigned to look into E-Government initiatives.

Recognising the importance on developing and implementation of E-Government for Brunei Darussalam to strive forward, a new Department was formed directly under the Prime Minister's Office on the 1st April 2008, known as the E-Government National Centre (EGNC).

EGNC is made responsible to manage the whole IT personnel within the public sector, which at that time was amounting to about 350. In addition, EGNC also provided core IT services to both the public and private sectors, such as E-mail, Co-location and Co-hosting.

Over the years, EGNC has expanded its key IT services, including the capabilities and capacities. Some of the new IT shared services provided includes Central Web Hosting, One-Government Private Cloud and One Government Network.

2.1.2 Brunei Vision 2035

In 2007, Brunei announced the Wawasan Brunei 2035 (Brunei Vision 2035) as a long-term development strategy, aiming to transform the country into a fully developed nation by the year 2035.

The vision is for Brunei Darussalam to be recognised everywhere for:

1. The accomplishment of its well-educated people.
2. The quality of life.
3. The dynamic, sustainable economy.

2.1.3 Digital Government Strategy 2015 - 2020

The Digital Government Strategy 2015-2020 was introduced on the 8th June 2015, during the Fourth ASEAN Chief Information Officers (CIO) Forum, held in Brunei Darussalam.

It is driven by the Brunei Vision 2035, using Information Technology (IT) as an enabler to align and support programmes of the Nation towards those goals.

The Digital Government Strategy has six focus areas, namely: -

1. Service Innovation.
2. Collaboration and Integration.
3. Capability and Mind-Set.
4. Optimisation.
5. Security.
6. Enterprise Information Management.

This paper is supporting the first focus area, which is Service Innovation. With an increasingly sophisticated and dynamic society, EGNC strives to develop innovative approach to offer its IT services with much more convenience and efficiency.

2.2 Rational

In order to support the Digital Government Strategy 2015-2020 and Brunei Vision 2035, IT services provision by EGNC can be regarded as one of the main optimizer in providing value and cost savings to the Government.

With the increase of latest technologies and application programs, the need for EGNC to provide more shared IT services for all Ministries and Departments is becoming more significant. The intention is to avoid wasting money and resources, replicating almost similar work of nature across Ministries and Departments.

Hence, the need for the development and implementation of Service Portal for EGNC, providing easier access on the shared IT services is essential. Such portal would enable clients to request for those services faster, via online, saving time and potential wastage of paper along the way. In addition, the service request in the portal should also aligned according to the international best practices standard – ITIL Version 3, to ensure the whole process can be carried out in an efficient manner.

2.3 Objectives

The objectives of this paper are to document the development and implementation of Service Portal for EGNC, in order to achieve the followings: -

1. To improve service delivery of IT services within the Government.
2. To ensure IT service request can be carried out in accordance to the international best practices.
3. To help clients save time and cost when requesting an IT service.

2.4 Value to the Department

The value of providing Service Portal for EGNC would include the followings: -

1. The ability to provide quick and effective access to standard services that business staff can use to improve their productivity or the quality of business services and products.
2. The ability to effectively reduce the bureaucracy involved in requesting and receiving access to existing or new services, thus also reducing the cost of providing these services.
3. The ability to increase the level of control over requested services through a centralized fulfilment function. This in turn can help reduce costs through centralized negotiation with suppliers and can also help to reduce the cost of support.

3. Implementation

3.1 Project Objectives

The objectives of this project are as the followings: -

1. To provide a platform for clients to request and receive standard services for which a predefined process exists.
2. To maintain client's satisfaction through efficient and professional handling of service requests.
3. To provide information to clients about the availability of services and the procedures for obtaining them.
4. To assist with general information, complaints or comments.

3.2 Information and Data Collection

During the initial stage of E-Government initiatives in Brunei, there were several Data Centres built by Ministries, hosting several email systems. Along those years, EGNC was then established under the Prime Minister's Office, back in 2008.

EGNC was assigned to provide IT services in terms of operations, procurement and human resources related to ICT, especially within the public sector. Over time, several consolidated IT services were assigned to EGNC, including the followings: -

1. Data Centre Co-location
2. One Government E-Communication (OGEC)
3. One Government Network (OGN)
4. One Government Private Cloud (OGPC)
5. Central Web Hosting (OGPC)
6. Onepass (Public Key Infrastructure)

3.3 Service Request Fulfilment Procedure

The concept of the Service Portal would be utilizing the Request Fulfilment Process, under the ITIL Version 3 (2011).

Hence, this Service Request Fulfilment Procedure is basically the Standard Operation Procedure (SOP) on how to handle IT service requests according to international best practices standard i.e. ITIL version 3 (2011).

It includes the workflow that clearly shows how service request should be handled, as shown in the diagram below.

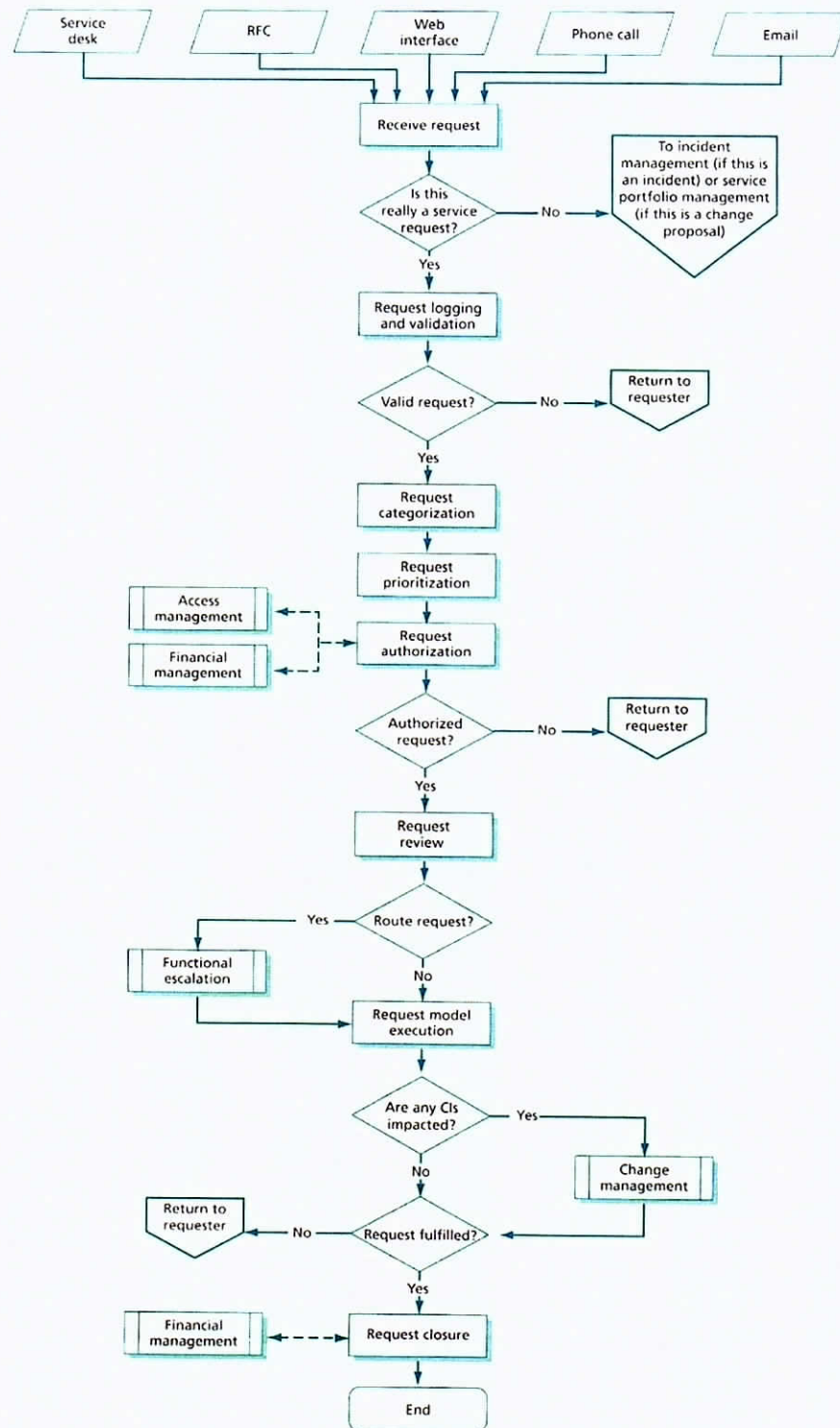


Diagram 1. Service Request Fulfilment workflow

3.3.1 Roles and Responsibilities in Service Request Fulfilment Process

Request Fulfilment Process Owner

The Request Fulfilment Process Owner is accountable for the Request Fulfilment Process and is responsible for identifying improvements to ensure that the process continues to be effective and efficient.

The main roles and responsibilities typically include:

1. Accountable for the Request Fulfilment Process.
2. Responsible for identifying improvements in ensuring the Request Fulfilment Process continues to be effective and efficient.
3. Ensuring the Request Fulfilment Process is performed in accordance with the agreed and documented process.
4. Documents and publicizes the Request Fulfilment Process.
5. Enforces policy compliance and communication.
6. Evaluate policy effectiveness.

Request Fulfilment Manager

The Request Fulfilment Manager is responsible for the effective implementation of the Request Fulfilment Process. It is a much more of a hands-on role and is responsible for the Planning and Coordinating activities of the process.

The main roles and responsibilities typically include:

1. Responsible for the effective implementation of the Request Fulfilment Process and makes recommendations for improvement.
2. Responsible for the Planning and Coordinating activities of the Request Fulfilment Process.
3. Drives the effectiveness and efficiency of the Request Fulfilment Process.
4. Manage co-workers handling service request fulfilment activities.

5. Manage the Request Fulfilment Systems, to ensure Service Request Records are recorded accurately.
6. Work with Change Manager to link Request Fulfilment to Changes.

First Level Support - Help Desk

The Help Desk is the vital part of the process because it acts as the point of contact for IT users or clients. It oversees, manages and coordinates all activities to respond to a service request and serves as a single point of contact until it has been fulfilled.

The main roles and responsibilities typically include:

1. Providing a single point of contact and end-to-end responsibility to ensure submitted service requests have been processed.
2. Providing initial triage of service requests to determine which IT Team should be engaged to fulfil them.
3. Communicating service requests to other IT Teams that will be involved in fulfilling them.
4. Escalating service requests in line with established service level targets.
5. Log and prioritized received service requests.

Second Level Support – Functional Support

The Functional Support team are made up of staffs with greater technical skills than the Help Desk.

The main roles and responsibilities are:

1. To fulfil service requests that are much complex than what the Help Desk can fulfil, within the established service level targets.
2. Request external support, e.g. from software or hardware manufacturers, when required.

Third Level Support

The Third Level Support are the Vendors i.e. the suppliers and/or maintainers. They are also referred to as the Subject Matter Expert, who will provide assistance to the First and/or Second Level Support, when required, in fulfilling the service request.

In summary, the accountability and responsibility of the roles, in relation to the processes and activities can be shown in the RACI matrix below: -

RACI Diagram		Request Fulfilment Manager	Help Desk	Second Level Support	Third Level Support	Request Fulfilment Process Owner
Key to Abbreviations:						
R - Process / Function Responsible A - Process / Function Accountable C - Process / Function Consulted I - Process / Function Informed S - Process / Function Supportive						
Activities	Roles					
Creating the Process						
1- Creating a new process						
Assign Request Fulfilment Manager role		I	I			AR
Document goals, objectives, and scope		S	I			AR
Adopt and adapt Request Fulfilment process		AR	R			S
Identify Request Fulfilment categories		AR	S			S
Decide what data needs to be managed		AR	S			C
Identify granularity of data to be stored in the IMS		AR	S			C
Define interfacing lines with other processes		AR	I			S
Define RACI Chart		S	I			AR
Define CSFs and KPIs		S	I			AR
Request Fulfilment - Activities						
1- Record the users information						
Collect necessary user data		A	R			
Record details of the service request		A	R			
2- Classify service request						
Categorize service request		A	R			
Determine supportability		A	R			
Prioritize service request		A	R			
3- Service request fulfilment						
Request authorization		A	R	R	R	
Request fulfilment		A	R	CR	CR	
4- Validate, Verify and Close						
Verify request fulfilment with User / Client		A	R			
Update and Close Service Request Record		A	R			
Maintaining the Request Fulfilment Process						
ONGOING						
Review - Ensure Good Service		AR	R			R
Service Level Monitoring		AR	R			R
Measure adoption		AR	R			R
Create improvement plans		AR	R			R
Execute improvement plans		AR	R			CI

3.3.2 Service Portal Concept

Ideally, the Service Portal should offer the clients a self-service 'menu'-type selection via a web-based interface so that they can select and input details of service requests from a predefined list of service catalogues. In this way, appropriate expectations can be set by giving target delivery. An example of a Service Portal is shown in the diagram below.

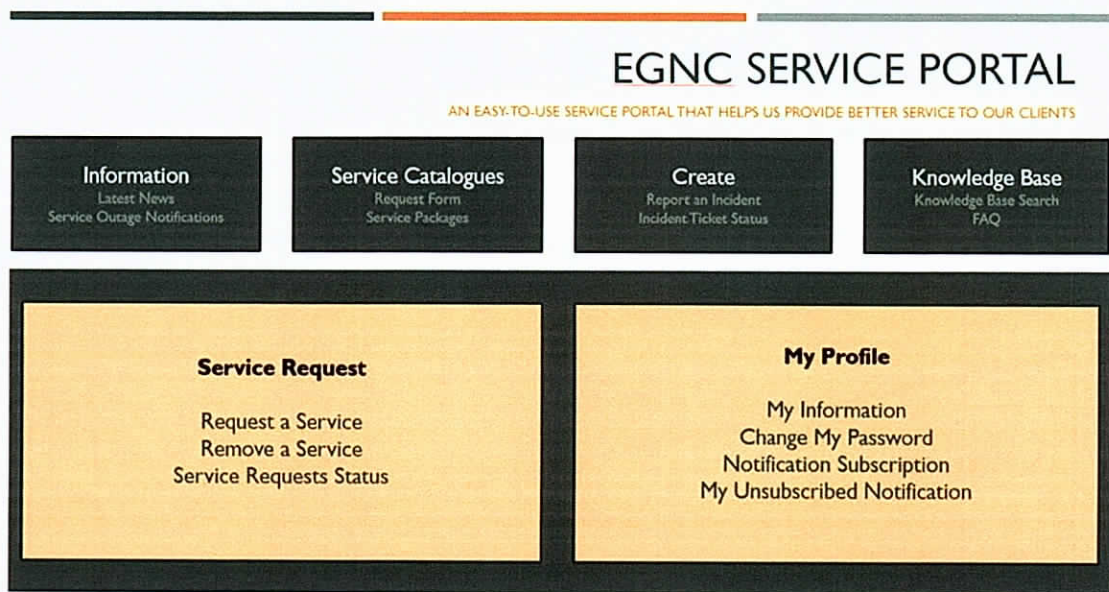


Diagram 2. An example of Service Portal

In providing the Service Portal, the followings would be taken into considerations: -

1. Start off with the most commonly requested service, that are simple and easily fulfilled. This would deliver immediate value to clients and allows the team to learn as they build out future phases of the service catalogue.
2. Document all service request offering's requirements (question data, approval process, fulfilment procedures, fulfilment team, service custodian, SLAs, reporting, etc.) before adding them to the service catalogue. This will allow the team to best manage the service request offering over time.

3. Standardize the approval process where possible. For example, all service requests for new e-mail account can be considered pre-approved, and all virtual environment (OGPC) requests need to be approved by EGNC Project Review Committee (PRC).
4. Review the request fulfilment process and procedures to identify which support teams are responsible for completing the request, and if any special requirements exist.
5. Identify what knowledge information should be available in the knowledge base when a service catalogue is released. The overall goal of self-service is to give the clients what they want faster and to deflect requests where possible. Hence, common FAQ should be included as part of the service catalogue package.
6. Review Service Level Agreements (SLAs) to ensure the proper measurements and notifications are in place so that requests can be recorded and fulfilled in a timely manner.
7. Identify what reporting is needed to properly manage the lifecycle of a service request.

3.3.3 Service Request Status Tracking

Service request should be tracked throughout their lifecycle in order to support proper handling and reporting on the status of requests. Within the Service Portal, status code can be established to indicate where the requests are, in relation to the lifecycle. For example: -

Status Code	Details
Submitted	Indicates that the request has been successfully submitted
Waiting Authorization	Indicates that the request has been submitted for authorization
In review	Indicates that the request has been authorized and are under review by the those that will be performing fulfilment activities for them
Rejected	Indicates that the request has been rejected
Cancelled	Indicates that the request has been cancelled or no longer required by the user / client

In progress	Indicates that the request is in the process of being fulfilled
Completed	Indicates that the request has been fulfilled
Closed	Indicates that the user / client has agreed that the request has been fulfilled and the request has been closed.

3.3.4 Service Request Prioritization

Another important aspect in handling service request is to allocate the appropriate prioritization code, as this will determine how the request is handled by the portal and the team.

Prioritization can normally be determined by taking into account both the urgency of the request (how quickly it needs to be delivered) and the level of impact it is causing. The table below describes an example of a simple priority coding system:

		Impact		
		High	Medium	Low
Urgency	High	1	2	3
	Medium	2	3	4
	Low	3	4	5

Priority Code	Description	Target delivery time
1	Critical	1 hour
2	High	8 hours
3	Medium	24 hours
4	Low	48 hours
5	Very Low	1 week

3.4 Service Request Fulfilment Policy

In addition to the Service Request Fulfilment Procedure, the establishment of Service Request Fulfilment Policy is also essential. This is to ensure that the Service Request Fulfilment Procedure would be carried out in accordance to a set of rules, in alignment to the international best practices standard – ITIL version 3 (2011).

The policy statement for the Service Request Fulfilment that can be considered are as the followings: -

1. The activities used to fulfil a service request should follow the predefined process flow stated in the Service Request Fulfilment Procedure.
2. Service requests that has impact on CIs should go through the Change Management Process.
3. All service requests should be logged, controlled, coordinated, promoted and managed throughout their lifecycle through a single system.
4. All service request must be authorized before their fulfilment activities are undertaken.
5. Fulfilment of service requests should take place under an agreed set of criteria for determining their priority that is aligned with Service Request Prioritization.
6. Clear communication channel for making service request and determining their status must be in place.
7. The Service Request priority may not be downgraded or upgraded unless approved by the Service Request Fulfilment Manager.
8. All Service Request must be managed in accordance with the EGNC's Operational Level Agreement (OLA) and Service Level Agreement (SLA).
9. Client's feedback must be obtained before closing the Service Request Record.
10. Completed Service Request Record that are pending for client's feedback can be closed after 7 working days.

The policy should also include the remediation steps for any non-compliance.

3.5 Findings

Currently, for Ministries and Departments to acquire the IT services provided by EGNC, they have to go through the manual process. In summary, these processes can be described as the followings: -

1. First, the Ministries or Departments will approach EGNC either by email, letters or phone. Such approach would include a request to have a meeting with EGNC, to understand more of the IT Services.
2. EGNC Team would then provide relevant informant on the IT services that they are interested during the meeting and seek their requirements.
3. If the Ministries or Departments are interested and decided to obtain those services, an official letter would be provided to EGNC, either by email or paper.
4. If those requirements can be met by EGNC, such request would then be acknowledged and accepted. EGNC would inform them the related procedures to be followed through, such as security access request.
5. The Ministries and Department would then obtain the IT services.

In providing IT services within the Government, it is observed that this manual process may take a period between several days to several months, depending on the urgency by the Ministries or Department, as well as resources availability from both sides.

EGNC has also started implementing a new tool for managing service request in 2015. However, due to limited resources, it could only be fully utilized starting Jan 2018. The statistic table below shows the number of service requests that have been received by EGNC.

Year	Total Service Request Record
2016	4
2017	13
2018 (Till Apr)	919

3.6 Challenges and Implications

Recognising the benefits of having a Service Portal for EGNC, to provide better ways to offer its IT services, some challenges and implications simply cannot be ignored, such as the followings: -

1. Poor defined scope

Project team is unclear about exactly what the process in the service portal is expected to handle. In the end, the service portal might not work efficiently, instead causing more work for the team.

2. Poorly designed interface

User interface of the service portal plays an important key to gain uptake. Simple and non-complicated user interface is important, otherwise user will have difficulty requesting the IT services that they need.

3. Unclear workflow

Service request workflow must be clearly defined in EGNC before establishing the service portal. Else, this will lead to confusion as to who should handle the service request.

4. Having the right tool

Without the help of well working tools, it will definitely be difficult to implement a service portal. A fully functional service portal must be able to deal with the complex nature of requests, through the use of workflow. Without this, the service portal may end up as a failure.

5. Funding

In the end, the most important thing is the availability of funding to implement the service portal, unless everything required are already available within EGNC. Otherwise, they project will stay on the planning stage.

3.7 Review

Implementing Service Portal for EGNC clearly has its value. For a successful implementation of the project, all the challenges must be approach and solved in the best way possible. This would in the end, lead to positive impact for EGNC and eventually creating overall beneficial effect for the Government.

Hence, management support is highly required. Not just to push the team to do what it takes to implement the portal, but also to gain trust and support from other stakeholders for the portal's provision.

4. Proposal and Recommendations

4.1 Service Portal for EGNC

To develop and implement the Service Portal for EGNC, the followings are the recommendations to ensure its success: -

1. Each IT Service must first be clearly defined and documented. It should define the relevant team involvement and show the predefined process flow for each of the services being requested.
2. Agreements will need to be in place with the management, for which IT services will be standardized and included in the portal, including its Service Level Agreements (SLA) and the commercial aspect, if applicable.
3. Think big and start small. Establish the service portal with a small number of IT Services under EGNC. This is to ensure that the whole process can be managed at the initial stage thus avoiding the risk of failure. Introduce IT service offerings in the service portal phase by phase.
4. Service catalogue should then be established, to act as the first source of information for clients seeking access to a service. The service catalogue can then be easily accessed via the service portal and it shall clearly display what IT services are available from EGNC.
5. Select a proven technology or tool to build the Service Portal for EGNC, such as Microsoft SharePoint. Such tool can easily be maintained and supported by the available experts, thus increasing project success rate.
6. Ensure the project should not end upon completion. Continuous service improvement activities should always take place, to maintain the efficiency of the process.

4.2 Service Request using ITIL Version 3

In Information Technology (IT), one of the international standard being widely used across governments and companies is the Information Technology Infrastructure Library (ITIL).

Service request can be related to Request Fulfilment Process in ITIL. A request fulfilment is the process responsible for managing the Lifecycle of all Service Requests from the users.

As such, it is proposed to follow this process to implement the service request on the Service Portal for EGNC, to ensure it can be carried out in the best way possible.

4.3 Service Portal Expansion

In the long run, if the Service Portal for EGNC has proven to be successful, the next phase would logically be expanding it, perhaps to the rest of the Government.

Some of the Ministries and Departments might have typical service requests which are low risk in nature, in terms of cost and impact. Hence, it would be better to automate this process and include it in the service portal.

Clients should be offered a 'menu'-type selection via the portal, so that they can select the service requests available, according to the respective departments or ministries.

This type of 'shopping basket' experience can be interface directly to the back-end work flow. Such requests can be channelled to the respective ministries' Help Desk team, for fulfilment process.

5. Summary

Introducing a Service Portal for EGNC would have a very high impact on client satisfaction. Requests that are managed well and addresses on a timely basis would project a positive image on EGNC for its ability to innovate how things are being done.

The ability to provide quick and effective access to standard service would not only benefit EGNC but also the requesting Ministries and Departments. Productivity can be increased, while reducing cost and time.

By putting that in a bigger picture, if the whole Government take the similar initiative, one can only imagine how large the benefits would be. It would effectively reduce the bureaucracy involved in requesting and receiving access to services, thus improving the efficiency in providing services.

Inevitably, this will support the Digital Government Strategy 2015-2020, using Information Technology (IT) as an enabler to align and support programmes of the Nation towards the Brunei Vision 2035 goals.