The Government of Malaysia has launched the Public Sector Information and Communications Technology (ICT) Strategic Plan to ensure that the various ICT initiatives undertaken by the Government agencies will be in line with the Public Sector ICT vision; to provide efficient and quality service to its customers - the citizens and businesses.

In achieving this vision, the ICT Strategic Plan will be the blueprint that defines the vision, strategic direction and framework for the usage of ICT in the Public Sector; the objectives and strategic thrust areas of ICT development for the Public Sector; as well as the implementation strategies and action plans to be taken to realise the objectives of the plan.
The revolutionary impact from ICT has resulted in greater expectation of citizens and businesses on the overall performance of governments. With eGovernment it is now almost an accepted norm for citizens and businesses to expect easy and expeditious access to Government information and services anytime, anywhere.

To meet these expectations, the Government of Malaysia has continuously improved its internal processes and service delivery mechanism. While these efforts have enhanced the Government's provision of information and services, the Government believes in striving forward to a more effective eGovernment. The next stage of eGovernment will focus on integrated cross-agency services based on a holistic master plan that is formulated after careful consideration of the total spectrum of the country's strategic thrusts.

Thus it is timely that the Malaysian Administrative Modernisation and Management Planning Unit (MAMPU) developed the ICT Strategic Plan for the Public Sector. This plan provides the blueprint to achieve the Public Sector ICT vision providing citizens and businesses enhanced access to Government information and services.

Looking forward, I believe that this Blueprint will serve as an excellent guide to enhance our electronic service delivery and national competitiveness. In this respect I would like to thank all the Government Ministries, agencies and departments that have contributed to this effort in charting the future course for our E-Government.

I would like to express my appreciation to the members of the Government IT and Internet Committee (GITIC) for their effort and invaluable input to the development of this Blueprint. My special gratitude also goes to MAMPU for planning and spearheading this effort.

Tan Sri Samsudin Osman
Chief Secretary To The Government of Malaysia
Numerous ICT initiatives have been planned and implemented throughout the Malaysian Public Sector. The application of ICT has accelerated further in recent years with various initiatives deployed to enhance productivity and improve service delivery.

To ensure these initiatives are aligned to a common vision, MAMPU initiated a study to develop the Malaysian Public Sector ICT Strategic Plan. The plan will set the ICT direction and framework, and will also serve as a blueprint for future ICT development and implementation in the Malaysian Public Sector.

The development of the blueprint required a detailed understanding of the Government’s strategic thrusts as well as an analysis of the requirements within the Public Sector. In addition, leading international eGovernment practices were also reviewed as part of the formulation of the recommendations.

A key message from the ICT Strategic Plan is that the Public Sector will need to provide simplified procedures and processes, as well as end-to-end services that involve cross-agency collaboration. This is to enhance the convenience to citizens and businesses and to ensure that the Government portrays the image of “One Government”, instead of the view of a myriad of agencies and departments.

The ICT Blueprint developed is also intended to meet the current and future requirements of the Public Sector. It charts the Malaysian Public Sector’s path towards an electronic and join-up Government that is able to provide seamless information and services to the citizens and businesses.

I would like to express my heartfelt appreciation to Y. Bhg. Tan Sri Samsudin Osman, Chief Secretary to the Government of Malaysia, for his continuous guidance and direction toward the successful completion of this Blueprint.

Finally, my special thanks goes to the project team from MAMPU and consultants from PwC Consulting (currently known as IBM Business Consulting Services) that worked together to develop this Blueprint.

Datin Nazariah Mohd Khalid
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With Vision 2020, Malaysia espouses to be a nation that is fully developed along all dimensions. The Vision, however, is not about making Malaysia a replica of any of the current developed countries. Instead, it states that Malaysia should aim to develop in its own mould. To achieve this, there is a need for a mental revolution and cultural transformation.

Planning
Thus far, Malaysia has adopted a systematic approach in her planning to attain her Vision. This is attested by the number of policy documents, white papers and working papers such as the Outline Perspective Plan 3 (OPP3), the Eighth Malaysia Plan (8MP), and the various sectoral masterplans.

These documents articulate and set out the ideas, concepts and action steps necessary to materialise Vision 2020. OPP3 puts forward the policies and strategic thrusts to be pursued from 2001 to 2010, whilst 8MP is to operationalise the first phase of the strategic thrusts recommended by OPP3.

ICT as a Key Enabler
The 8MP also emphasises and places great importance on ICT as a key enabler to improve Malaysia’s competitiveness while at the same time enhancing the knowledge content of key economic activities of the industrial, agricultural and services sectors. The prominence placed upon ICT within the 8MP is indeed in line with other Malaysian Government’s initiatives since the 1990s.

Key ideas and concepts had been carried forward and enhanced at each stage from the National IT Agenda (NITA) to OPP3 to 8MP.

It began with NITA’s goal to transform Malaysia into an information society, now refined into the idea of a knowledge society by OPP3 and 8MP.

Malaysia recognises that it is not enough just to deploy and use ICT as a tool, but it is also important for users to be able to manage and turn information into knowledge and use it creatively to create a Knowledge-based economy.
Role of the Public Sector

Join-up government is about transforming a Government from thinking and acting like a number of largely independent Ministries to a Government that presents itself as a single entity that meets the unique needs of specific customer segments.

As outlined in Malaysia’s Vision statement and policy documents, the Public Sector has a key role to play in supporting the Government’s aspirations. In particular, the Public Sector has a pivotal role:

- To enable a conducive and vibrant economic environment;
- To facilitate growth and competitiveness of the industry and the Private Sector;
- To support the country’s manpower needs; and
- To enhance the quality of life of Malaysian citizens.

Leveraging on ICT

ICT is recognised as a key enabler for the Public Sector to carry out its role efficiently and effectively.

The Government thus needs to define ways to leverage on ICT to transform the Public Sector’s internal operations and provision of Government services to the public. This transformation involves providing the services and information via electronic means on an “anywhere and anytime” basis. It also requires the creation of a conducive environment, effective back-office processes and seamless front-end integration across the Public Sector to encourage citizens and businesses to adopt the new practices.

The Challenge

The challenge for the Public Sector is to formulate the means to deliver Government services through the use of ICT and multimedia so as to:

- Provide efficient, expeditious, secured and quality services electronically;
- Leverage on ICT and multimedia to enhance productivity in the Public Sector;
- Facilitate the sharing of resources among Government agencies; and
- Be citizen-centric in the delivery of its services.
Over the past few years, the Malaysian Government has made significant progress in the development and utilisation of ICT (Exhibit 1) with the objective to turn Malaysia into a fully developed nation as outlined in Vision 2020.

Multimedia Super Corridor (MSC) and Electronic Government (EG)

The MSC - EG Flagship initiative continues to be the basis for enhancing efficiency and service delivery to the public while fostering partnership between the Government, citizens and businesses.

Towards this end, the EG flagship applications, namely E-Services, E-Procurement, Human Resource Management Information System (HRMIS), Project Monitoring System (SPP II), Generic Office Environment (GOE), Electronic Labour Exchange (ELX) and E-Syariah have progressed to different stages of their development, implementation and roll-out.

Government ICT Initiatives

In addition to the EG initiative, various computerisation programmes have also been undertaken at the agency level. These include IT infrastructure development and upgrade, core business applications as well as the computerisation of business operation functions.

There are also numerous initiatives on developing customer facing systems to enhance access to Government information and services via the Internet, with a few being more interactive, allowing citizens and businesses to conduct transactions with the Government.

There are also numerous initiatives on developing customer facing systems to enhance access to Government information and services via the Internet, with a few being more interactive, allowing citizens and businesses to conduct transactions with the Government.
In addition to the applications highlighted, a key success factor of ICT development is the creation of an enabling environment that includes comprehensive technical infrastructure, policies and guidelines, ICT governance as well as skilled ICT personnel.

A sound enabling environment will provide a reliable foundation for more ICT and multimedia related activities. In recent years, the Government has put significant focus in this area ensuring the development of the infrastructure, policies and frameworks as well as appropriate ICT governance to support ongoing initiatives (Exhibit 2).

**ICT Policies and Guidelines**
The Public Sector’s policies and guidelines for ICT management and implementation have been developed to provide a framework that entails a structured approach in planning, acquisition and operation of the ICT environment in the Public Sector.

**ICT Governance**
A strong ICT governance structure is essential to the development and implementation of the e-government initiatives. Towards this end, several committees have been established to drive and coordinate ICT development to ensure the initiatives are aligned with the national ICT direction.

**ICT Infrastructure**
In carrying out eGovernment initiatives, it is also essential to set up a common networking infrastructure, which can act as a base for integration and interoperability. The infrastructure allows agencies to be connected in a dedicated network to facilitate secured electronic delivery of information and services for inter and intra-agency communications.
Enhancing Electronic Services Delivery

Exhibit 3

ICT Framework

Public Sector’s ICT Vision

- Businesses
- Government Employees
- Citizens

Gateway

- SMS
- WAP
- Web
- IVR
- Phone
- Counter
- Fax

Community Applications

Agency Specific Applications

Enterprise Wide Applications

Knowledge Bank

Enabling Environment
- Leadership & Coordination
- Policy / Legislation

- People & Culture
- Infrastructure & Standards

Vision

Customer Communities

Access Channels

Applications

Knowledge Warehouse

Enabling Environment
Understanding that eGovernment is a continuous transformation that requires significant effort and time to implement, the Malaysian Government developed a framework that will be used to chart its path (Exhibit 3).

**ICT Framework**
The framework was developed based on the vision of where the Malaysian Public Sector intends to be in the future, an assessment of the Public Sector’s current business and ICT environment and also research and benchmarking on international best practices.

The components of this framework are:

**Public Sector ICT Vision** – The Malaysian Public Sector ICT Vision aims to:
- Provide efficient, expeditious, secured and quality services electronically;
- Leverage on ICT and multimedia to enhance productivity in the Public Sector;
- Facilitate the sharing of resources among Government agencies; and
- Be citizen-centric in the delivery of its services.

**Gateway** – The component that enables the users (i.e. citizens, businesses and Government employees) to perform a wide range of functions through common, convenient and one-stop access channels to Government related services and information. These access channels cover various forms of access methods available such as mobile devices, telephone, fax, counter services and Internet.

**Community Applications** – These will provide end-to-end services to citizens and businesses and require many agencies to interact and coordinate with each other. Community Applications address the needs of groups that share similar interest.

**Agency Specific Applications** – These applications support the operations of individual agencies for efficiency and effectiveness. Such applications also interact with the Community Applications in order to provide cross-agency services;

**Enterprise Wide Applications** – These comprise a comprehensive suite of applications to address the needs of agencies across the back office functions of Government. A high degree of integration is required to minimise the level of interfacing;

**Knowledge Bank** – Supports the sharing of information and experiences within Government agencies to increase productivity and improve efficiency through a set of knowledge management systems; and

**Enabling Environment** – Consists of supporting enablers that will impact ICT and E-Government initiatives. These enablers need to be in place so as to ensure success of the above initiatives.
Strategic Responses

Exhibit 4

Public Sector's ICT Vision

Businesses
- SMS
- WAP
- Web
- IVR

Government Employees
- Phone
- Counter
- Fax

Citizens

Gateway

Community Applications

Enterprise Wide Applications

Agency Specific Applications

Knowledge Bank

Enabling Environment
- Leadership & Coordination
- Policy / Legislation
- People & Culture
- Infrastructure & Standards

1. Improve service delivery through increased public facing and cross agency initiatives
2. Increase cohesiveness within the back-office functions through integration of internal processes
3. Facilitate sharing of knowledge and experience by capturing information across government
4. Enhance the infrastructure to support on-going and future ICT initiatives
5. Strengthen the current ICT governance framework to further improve coordination of ICT programmes
6. Develop ICT skills in the Public Sector and encourage an e-enabling culture
7. Continuously develop policies to encourage electronic transactions
In line with the framework developed, seven (7) strategic responses were identified (Exhibit 4):

**Strategic Response 1:**
Improve Service Delivery Through Increased Public Facing and Cross-Agency Initiatives

- Develop a single Government gateway to serve as entry point to the Government
- Implement main portals:
  - Citizen Centric Portal
  - Business Portal
  - Government-to-Employee Portal
- Implement the following supporting applications:
  - Land & Property System
  - Local Government System
  - eSocial Services
  - eLearning
  - Online Income Taxation
- Implement the following:
  - Integrated Financial Management System
  - Key Performance Indicator System
- Integrate existing back end systems through the use of integration tools.

**Strategic Response 2:**
Increase Cohesiveness within the Back-Office Functions Through Integration of Internal Processes

- Implement the following:
- Integrate existing back end systems through the use of integration tools.

**Strategic Response 3:**
Facilitate Sharing of Knowledge and Experiences by Capturing Information Across Government

- Create a framework to outline workflow process from the creation through to the application of knowledge
- Identify and develop set of knowledge databases, such as:
  - Economic Intelligence
  - Security Intelligence
  - R&D
  - National Statistics
- Empower selected agencies to lead the definition & development of their shared databases
- Identify and develop other portals to support the main portals
- Implement the following supporting applications:
  - Integrated Financial Management System
  - Key Performance Indicator System
- Integrate existing back end systems through the use of integration tools.

In line with the framework developed, seven (7) strategic responses were identified (Exhibit 4):
Strategic Response 4: 
Enhance the Infrastructure to Support On-going and Future ICT Initiatives
- Build multi-tier technology architecture to set out necessary enabling components (Exhibit 5)
- Establish a single, high broadband Government backbone, with the direction of moving towards broadband

Strategic Response 5: 
Strengthen Current Public Sector ICT Governance Framework To Further Improve Coordination of ICT Programmes
- Refer to GITIC all ICT projects that involve Government agencies
- Enhance collaboration with other Governments on ICT initiatives

Strategic Response 6: 
Develop ICT Skills in the Public Sector and Encourage an E-Enabling Culture
- Develop a comprehensive plan for the development of Human Resource to support Public Sector ICT vision
- Regularly monitor the demand and supply of ICT staff and skills
- Communicate the shared ICT vision
- Establish programmes and incentives to encourage cross-agency collaboration

Strategic Response 7: 
Continuously Develop Policies to Encourage Electronic Transactions
- Undertake regular international benchmarking of e-Government
- Monitor and progressively enhance the regulatory framework to deliver electronic services
- Set and communicate realistic targets and priority areas for individual initiatives and achievements (Exhibit 6)
- Conduct reviews of individual initiatives
ICT Policy Targets to be Achieved by 2005

**Government Services**
- 80% of all amenable Government services will be e-enabled.
  - To measure this target, the Public Sector will need to:
    - Identify the types of services;
    - Determine which agencies deliver such services; and
    - Agree on the means of delivering these services.

**PC, Internet and Infrastructure**
- Increase the usage of PCs for knowledge workers in Government to 100%.
- Enable 100% of knowledge workers to have access to the Internet.
- Develop and implement a national broadband infrastructure.

**Cross-Agency Collaboration**
- Implement at least 4 major cross-agency ICT initiatives.

**Back Office Function**
- Implement at least 1 major enterprise wide application.

**ICT Skills and Awareness**
- Develop and implement action plan to increase ICT skills and resources within Government.

**Performance Target**
- Introduce new performance targets for agencies to identify key cross-agency services.
The strategic initiatives will be implemented within the next 3 to 5 years. The successful completion of the implementation will enable the Public Sector to achieve its objectives of operating in a fully integrated environment (Exhibit 7).

Exhibit 7

<table>
<thead>
<tr>
<th>Laying the Foundation</th>
<th>Enhancing the Enabling Infrastructure</th>
<th>Delivering Enhanced Services</th>
<th>Operating an Integrated Environment</th>
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</thead>
<tbody>
<tr>
<td>Setup project resources &amp; offices</td>
<td>Implement the government gateway</td>
<td>Operationalise strategic initiatives (1)*</td>
<td>Operationalise strategic initiatives (2)**</td>
</tr>
<tr>
<td>Obtain approvals &amp; funding</td>
<td>Establish single government communications backbone</td>
<td>Initiate strategic initiatives (2)**</td>
<td>Complete back-office integration</td>
</tr>
<tr>
<td>Develop detailed requirements</td>
<td>Implement interoperability framework</td>
<td>Initiate back-office integration</td>
<td></td>
</tr>
<tr>
<td>Review interoperability framework</td>
<td>Strengthen governance framework</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tender, evaluation &amp; award</td>
<td>Initiate strategic initiatives (1)*</td>
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</tbody>
</table>

* Strategic Initiatives (1)
- Citizen Centric Portal
- Business Community Portal
- Local Government System
- Land & Property System
- Online Income Tax
- Integrated Financial Management System

** Strategic Initiatives (2)
- Government to Employee Portal
- E-Learning
- E-Social Services