IMPLEMENTATION OF
NATIONAL DIGITALISATION PLAN
IN MALAYSIA

KONVENSYEN PENTADBIR ICT 2018
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CURRENT PUBLIC SERVICE LANDSCAPE
CURRENT PUBLIC SERVICE LANDSCAPE

EXPERIENCING VUCA WORLD AS THE NEW NORMAL

Digital To The Core

01 Volatile

02 Uncertain

03 Complex

04 Ambiguous

Hyperconnected

Disruptive Technologies

Processing Anywhere/Everywhere

Shift In Economic Global Power

Rapid Urbanisation

Climate Change & Resource Scarcity

Demographic & Social Change

Policies & Regulations

Technology Breakthrough

Source: http://www.pwc.co.uk/issues/megatrends.html
IMPACT ON PUBLIC SERVICE DELIVERY
“In today’s era of volatility, there is no other way but to re-invent. The only sustainable advantage you can have over others is agility, that’s it. Because nothing else is sustainable, everything else you create, somebody else will replicate.”

JEFF BEZOS, AMAZON FOUNDER
Presentation

Sub topic

03

TRANSFORMING PUBLIC SERVICE DELIVERY
"You can’t delegate digital transformation for your company… you and your executives have to own it! Executives need to engage, embrace and adopt new ways of working with the latest and emerging technologies.”

BARRY ROSS, CEO AND CO-FOUNDER, ROSS & ROSS INTERNATIONAL

INNOVATING DIGITAL PUBLIC SERVICE DELIVERY

01 INTELLIGENCE (MEANINGFUL INSIGHTS)
Digital technologies yielding unprecedented amounts of data about the business/service ecosystems
(e.g. - business intelligence, data analytics, design thinking, business scenarios)

02 INTEGRATION (ORGANIZATIONAL STRUCTURE & CAPABILITIES)
Digital technologies bring greater connectivity between people and/or processes
(e.g. - data sharing, shared services, collaboration, governance)

03 IMPACT (VALUE CREATION)
Customer value an organization can bring by leveraging digital technologies
(e.g. – competitiveness, effectiveness, satisfaction, happiness)

“Change is the law of life and those who look only to the past or present are certain to miss the future”
JOHN F. KENNEDY

“The measure of intelligence is the ability to change”
ALBERT EINSTEIN

Source: www.europeanbusinessreview.com, 23 Sept 2016
UNDERSTANDING MALAYSIAN DIGITAL GOVERNMENT EVOLUTION

TRANSFORMING PUBLIC SERVICE DELIVERY

DIGITAL GOVERNMENT


PRODUCTIVITY + EFFICIENCY + OPENNESS + TRANSPARENCY + INCLUSIVENESS

Internet of Information  Internet of Processes  Internet of People  Internet of Things

eGov 1.0 eGov 2.0 eGov 3.0

TRANSACTION
Using online services to do transaction
FLUID

TRANFORMATION
Using online services to create opportunities via public participation
DYNAMIC

INFORMATION
Using government website to get information
STATIC

Internet of
Information
Internet of
Processes
Internet of
People
Internet of
Things

Developed Nation
Top 20 nation in economic development, social advancement & innovation

Digital government is government designed and operated to take advantage of DIGITAL DATA in optimizing, transforming, and creating government services.

Source:
Digital Government Is a Journey Toward Digital Business
ICT VISION

Vision 2020

More sophisticated citizen needs

CHALLENGES

Citizen engagement

High expectations from the younger generation

Change in technology, culture and demography

Drivers

Eleventh Malaysia Plan

Technology trends & disruptive technologies

Digital Industry Based Economy

DRIVERS

"An Inclusive Digital Government Spearheading Citizen Centric Service Delivery"
EA - ENABLING ECOSYSTEM FOR DIGITAL DELIVERY

How your business responds to digital technologies trend?

How an organization implements technology together with organizational structure & governance?

1. Business Architecture (innovative end-to-end services)
2. Information Architecture (information/data sharing)
3. Application Architecture (eliminate redundancy and leverage integration)
4. Technology Architecture (consolidated robust technology solution & private cloud)

How an organization instills a digital culture where digital data is at the core?

- Reducing bureaucracy
- Improving delivery process to increase responsiveness
- Leveraging data to enhance outcomes and lower costs
- Expanding outreach of services
- Increasing accountability (transparency and outcomes)

http://1govea.mampu.gov.my
Enterprise architecture is a structured approach used to define an organisation across different domains. It is often used as a practice to help transform the organisation through understanding, reconciling and planning across the Business, Data, Application and Technology domains.
MALAYSIA INITIATIVES TOWARD DIGITALIZATION

Public Services Delivery Digitalisation Plan

6 Strategic Thrusts

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<td>CAPABILITY &amp; CAPACITY BUILDING</td>
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2 Strategies
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3 Strategies

13 Strategies
29 Programs
93 Activities

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PUBLIC SECTOR CYBER SECURITY FRAMEWORK (RAKKSSA)

IDENTIFY
PROTECT
DETECT
RESPONSE
RECOVER
PROCURE
SECURITY AUDIT
ENFORCE
MALAYSIA’S INITIATIVES TOWARD DIGITALIZATION

EXPERIENCE - DRIVEN PUBLIC SERVICE

Consolidated And Secured Network
Government Shared Services
Anytime, Anywhere
Omni Channel
Cost Optimization

MAMPU as Public Sector Digital Government Leader

01 Help achieving service delivery excellence
02 Access to seamless online services
03 Data driven decision making
04 Open data crowdsourcing
05 Information sharing hub
06 Towards cashless society
MALAYSIA INITIATIVES TOWARD DIGITALIZATION

DIGITAL GOVERNMENT INITIATIVES

CONSOLIDATED DIGITAL SERVICES

- Government Online Services Gateway (GOSG)
- MalaysiaBiz
- 1Malaysia One Call Center (1MOCC)
- Government Mobile Application Gallery (GAMMA)
- Digital Document Management System (DDMS) 2.0

DATA DRIVEN GOVERNMENT

- Government Data Optimization Transformation Services (GDOTS)
  i. Public Sector Big Data Analytics (DRSA)
  ii. Public Sector Open Data (DTSA)
- Government Information Sharing Hub (myGDX)

3 OPTIMISATION OF SHARED SERVICES & CYBER SECURITY

- Public Sector Data Center (PDSA)
- Integrated Government Telecommunication Network (1Gov*Net)
- Unified Government Communication Collaborative Services (1GovUC)
- Government Public Key Infrastructure (GPKI)
- Public Sector Cyber Security Framework (RAKKSA)
- Compliance to International Security Standard
- Cyber Security Development Project (CSDeP)
- Malaysian Information Security, Governance, Risk and Compliance (MyISGRC)

DYNAMIC & COLLABORATIVE ICT GOVERNANCE

- Public Sector ICT Strategic Plan
- Government Service Delivery Digitalisation Plan
- Public Sector Enterprise Architecture (1GovEA)
- Collaborative Strategic with Stakeholders
- Policies & Guidelines

4 PROFESSIONAL & CAPABLE HUMAN CAPITAL

- Digital Government Competency & Capability Readiness (DGCCR)
- Capability Development Roadmap for ICT Scheme Personnel (CDR)
GOVERNMENT ONLINE SERVICES GATEWAY

SERVICE DELIVERY: GOVERNMENT-CENTRIC

AS IS DELIVERY SERVICES IN SILO

SERVICE DELIVERY: CITIZEN-CENTRIC

TO BE INTEGRATED DELIVERY SERVICES

DIGITAL FIRST, CITIZEN FOCUS

P1 Government Online Service (GOS) Gateway
P2 Information Sharing Hub
P3 National Registry
P4 Data Driven Program
GOVERNMENT ONLINE SERVICES GATEWAY

SIMPLIFY AND DELIVER WORLD CLASS EXPERIENCE

GOSG

MOE Portal

CITIZEN EXPERIENCE ACROSS CHANNELS (TOO MANY FRONT DOORS AND INCONSISTENT)

Citizen

Agent
GOVERNMENT ONLINE SERVICES GATEWAY

LIFE EVENT FRAMEWORK – G2C PARADIGM

CITIZENS

Non-anticipatory life events
- Becoming disabled
- Natural Disasters
- Accidents
- War
- Job loss
- Change in law
- Death of Spouse
- Illness
- Getting Divorced
- Moving home
- Others

Citizen Profile
- Personal Information
- Education
- Identity Documents
- Location
- Security and Authentication
- Preferences
- Employment Information
- Interests
- Accessibility
- History
- Life events
- Others

Recurring services
- Housing and Real Estates
- ID and Personal Documents
- Special Needs
- Health
- Public Utilities
- Social Welfare
- Legal and Justice
- Others

AGENCIES
Citizen centric and life events

Total end-to-end services

Single access

Single Sign-on

Standard interface
GOVERNMENT ONLINE SERVICES GATEWAY (MyGDX)

Legend:

- Data from agency to repository
- Data from repository/provider agency to consumer agency

Government Online Services Gateway

Apply for job

Apply for University

Skills Training Application

Data from repository/provider agency to consumer agency

MyGDX PORTAL

MASTER DATA MANAGEMENT

DATA BROKER

REPOSITORY OF DATA
(Education, Health, Welfare etc)

REGISTRY

Secured by SSL, GPKI Token etc

Government Agencies

Department of Skills Development
National Registration Department
Ministry of Higher Education
Ministry of Education
Public Services Commission
Government Data Optimization Transformation Services (GDOTS) initiatives will drive Digital Government transformation – MAMPU will be leading the Public Sector agencies towards building the National Data Ocean (NDO)
GOVERNMENT OPEN DATA

- Obtaining quality datasets and publish on data.gov.my
- Provide open data advisory
- Identify high impact use cases
- Document best practices and lesson learnt

Clusters

Transport
Agriculture
Education
Health
Social
Economy
Finance
Tourism

Open Data Users

- Business Communities
- Agencies
- Individuals

Cost savings to Government
Increase income via innovations
Generating economy via services

Transport
Agriculture
Health
Social
Economy
Finance
Tourism

USE CASES (UC)

UC
UC2
...
UCn

Innovation
Citizens/users
One stop centre housing all government mobile applications
• Software As a Service (SaaS) platform
• Secure, official, authentic and certified

PROBLEM
So many GST related app. Which one is GENUINE?

SOLUTION

Malware? Fake Application?
**Development Tools**
SpringMVC (JAVA)

**Database**
MySQL, Bacula System

**Language**
HTML, CSS, JavaScript

**Technologies**
Apache Tomcat, Apache Cordova, PhoneGap/Cordova
App Annie Analytic, Google’s Analytic and Windows Analytic
(Open Source Software)

**Platform**
CentOS
Citrix
SAN Storage

**App Market Store**
Windows
Apple
Android
FOR PUBLIC

- Better quality government services delivery
- Single source government mobile applications
- Secure and trusted applications
- Government services are available anytime, anywhere

FOR GOVERNMENT

- Infrastructure located in secured zone
- Cost saving via infrastructure sharing
- Enhance the ICT personnel skills
- Increase the speed of service delivery to citizens
- Attract the new generation to use Government related services
- Improve the image of the Government to the citizen
An electronic records management system to improve operational efficiency and user productivity in government administration

Supports entire lifecycle management of public records from creation, maintenance, dissemination and disposition of electronic records

Compliance to MS ISO 16175 standards
DIGITAL DOCUMENT MANAGEMENT SYSTEM (DDMS) - FRAMEWORK

**CAPTURE**
- Official Document
- Electronic Document
- Email
- Letter and Memo
- Form
- Scanned Document

**RETRIEVE**
- DDMS 2.0 Cloud
- Classification
- Display
- Search

**SHARE**
- NATURAL ARCHIVES OF MALAYSIA
- Disposal
- Email

**PUBLIC SECTOR AGENCY**

**PUBLIC SECTOR DATA CENTRE (PDSA) PUTRAJA YA**

**DOWNLOAD TO PC**

**OUTLOOK**

**WEB**

**OFFICE**

**DDMS 2.0 CLOUD**
1MOCC – 03 8000 8000

44 Ministries/ Agencies

Serving People  Let’s Get Connected
✓ single point contact centre
✓ provides 24/7 access to government services
✓ facilitate the public
✓ provides high quality customer service
✓ efficient, accurate and centralised communication
✓ unique single contact number, +603 80008000
✓ National Blue Ocean Strategy (NBOS)
OPEN SOURCE DEVELOPMENT & CAPABILITIES PROGRAMME (OSDeC)

Objectives

1. Provide development infrastructure centre focused on system development in partnership with public sector agencies.

2. Develop capacity and capability of the Public Sector ICT services.

3. Provide exposure on open source software technology and promote OSS products.

Benefits And Impacts

- Increase the capability of Public Sector officers in system development.
- Improve the use and implementation of open source software in Public Sector agencies.
- Save cost in system development through the concept of resource and infrastructure sharing.
- Minimize user licensing costs for developed generic products.
**OPEN SOURCE DEVELOPMENT & CAPABILITIES PROGRAMME (OSDeC)**

**Coaching**
Provide coaching services to enhance capability, knowledge and optimise individual potential.

T : 2500 mandays | A : 187 mandays

**Change Management**
Implement Regional Workshop Program, Open Source Community Workshop and Open Source Software Conference.

T : 14 events | A : 2 events

**Capability**
Generate self reliance and certified professional coaches within the public sector.

T : 10 coaches

**Training**
Provide technical and certification training.

Training - T : 43 session | A : 9 sessions
Certification – T : 14 sessions

**Infrastructure**
Provide infrastructure based on open source software such as Enterprise Edition Premium Cloud Suite and Community version.
Installation and commissioned by May 2018

Note:
T – Target
A – Achieved as of March 2018
The Public Sector Data Center (PDSA)

Provides integrated shared services for government agencies in Putrajaya using green technology. Services provided are:

1. Physical & Virtual Server Hosting
2. Data Center and Disaster Recovery Center (DRC)
3. Gateway Viruswall
4. Backup & Restore
5. Support Services
The Public Sector Data Center (PDSA)

1GOVNET

INTERNET

Legend:

Internet
1Gov*Net

MOH, MOE, JAWHAR, MOF

PKKT, KKMM, AGC, JIM

MOHE, MOTAC, MOA, JPN

PUTRAJAYA CAMPUS NETWORK

PDSA CYBERJAYA

PDSA PUTRAJAYA

PDSA ENSTEK
WHY DIGITAL TRANSFORMATION

Meet the citizens expectation

Enable and encourages investment in new business areas

Digital First, Citizen Focused

Inter agency data sharing

New way of delivering Public Services

End-to-End, citizen centric, user friendly interface and personalised services

Meet the citizens expectation
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