



كمنترين قمبراؤون  
MINISTRY OF DEVELOPMENT  
BRUNEI DARUSSALAM MOD

MOD

# DIGITAL PARADIGM

FRAMEWORK 2020-2025



#DIGITALPARADIGM

SMART  
INITIATIVE MOD



كمنترين قمبراؤونن  
MINISTRY OF DEVELOPMENT  
BRUNEI DARUSSALAM **MOD**

Published by:  
Ministry of Development

First printed March, 2022

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@Ministry of Development, 2022

Dewan Bahasa dan Pustaka, Brunei  
Cataloguing-in-publication

BRUNEI digital paradigm framework 2020-2025. -- Bandar Seri Begawan :

Ministry of Development, 2022

32 pages ; 21 cm

ISBN 978-99917-995-5-3 (ebook edition)






1. Brunei Darussalam. Kementerian Pembangunan -- Technological Innovations
2. Information technology -- Social aspects -- Brunei Darussalam
3. Information society -- Brunei Darussalam

303.4833 MOD (DDC 23)

Sourced by:  
Policy Coordination and Strategic Planning Division (PCSP), Ministry of Development



MADASID OF  
THE SHARI'AH

- 1 PRESERVATION AND PROMOTION OF FAITH**  
Adapting social intelligence for an emerging technology 
- 2 PRESERVATION AND PROMOTION OF LIFE**  
Enhancing quality, performance and interactivity of digital services 
- 3 PRESERVATION AND PROMOTION OF INTELLECT**  
Introducing new and existing technologies for the efficacy and efficiency of assets, resources and services 
- 4 PRESERVATION AND PROMOTION OF PROGENY**  
Transition to a digital ready future generation through knowledge engineering and creative partnerships 
- 5 PRESERVATION AND PROMOTION OF WEALTH**  
Catalyzing economic digital growth through investment and innovation 





TITAN



**HIS MAJESTY SULTAN HAJI HASSANAL BOLKIAH MU'IZZADDIN WADDAULAH IBNI AL-MARHUM SULTAN  
HAJI OMAR 'ALI SAIFUDDIEN SA'ADUL KHAIRI WADDIEN SULTAN OF BRUNEI DARUSSALAM  
TITAH IN CONJUNCTION WITH 35TH NATIONAL DAY CELEBRATIONS IN 2019**

“

Dalam era digital sekarang ini, kita perlu peka dengan kemajuan teknologi yang pesat yang dibawa oleh Revolusi Industry Ke-empat. Sebagai sebuah negara yang mempunyai wawasan, kita tidak boleh ketinggalan dalam meneroka ekonomi digital.

”



# PREFACE





بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

The sheer impact of rapid advancements in digital technologies are transforming our daily routines, in how we work and live. Technological advancements seek to improve lives and create valuable opportunities in embracing an era of digital transformation. The MOD Digital Paradigm Framework 2020-2025 is a transformative journey which endeavors towards seamless public delivery as well as providing resilient smart infrastructure using intelligent solutions.

Over the years, we have explored the utilization of technology for projects in digital infrastructure, optimized service delivery and smart environmental sensors which are adaptive and relevant. As a Ministry that caters to the public, we hope to harness and benefit from the frontiers of technology such as data analytics, artificial intelligence (AI) and the Internet of Things (IoT) to constantly improve and improvise our services. We envision more impactful digitalization that will enhance the quality of life and on a much broader context catalyze opportunities in the digital economy. These efforts are complementary to the comprehensive roadmap as stipulated in the Ministry of Development Strategic Plan and Policy Framework 2018-2023 and supportive of the Digital Economic Council's (DEC) aspirations into becoming a Smart Nation.

We are ready to work closely together with the public as well as the business sectors towards developing digital usage and innovation for a transformative future together. Let's embark on a #DigitalParadigm!

**YANG BERTHORMAT DATO SERI SETIA IR. AWANG HAJI SUHAIMI BIN HJ GAFAR  
MINISTER OF DEVELOPMENT**



“

Sebagai langkah ke arah ekonomi digital, pihak Kementerian pada masa ini sedang merebiu pelan strategik Kementerian khususnya untuk menjadikan Kementerian ini sebagai “Smart MOD” iaitu dengan mengenalpasti perkhidmatan yang sedia ada boleh diintegrasikan dan seterusnya didigitalkan bagi memudahkan proses permohonan.

”

YANG BERTHORMAT DATO SERI SETIA IR. AWANG HAJI SUHAIMI BIN HAJI GAFAR  
MINISTER OF DEVELOPMENT  
MINISTRY OF DEVELOPMENT MUZAKARAH SESSION  
WITH MEMBERS OF LEGISLATIVE COUNCIL BRUNEI, YEAR 2019

**15 SMART INITIATIVE MOD**

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**VISION AND MISSION**

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**CORE STRATEGIES**

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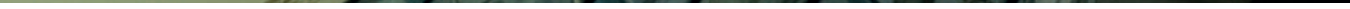








**VISION AND MISSION**  
**CORE STRATEGIES**  
**DRIVERS OF PRODUCTIVITY**  
**ENABLERS**  
**STRATEGIC THRUSTS**





# SMART INITIATIVE MOD

A close-up photograph of a person's hands using a yellow and black rugged handheld device, likely a Trimble TSC3. The person is holding a black stylus and pointing it at the device's screen. The device has a keypad and a camera lens. The background is blurred, showing what appears to be a construction site with orange safety barriers.

“

Leveraging on Information Technology to Streamline Operational and Process Structure

”

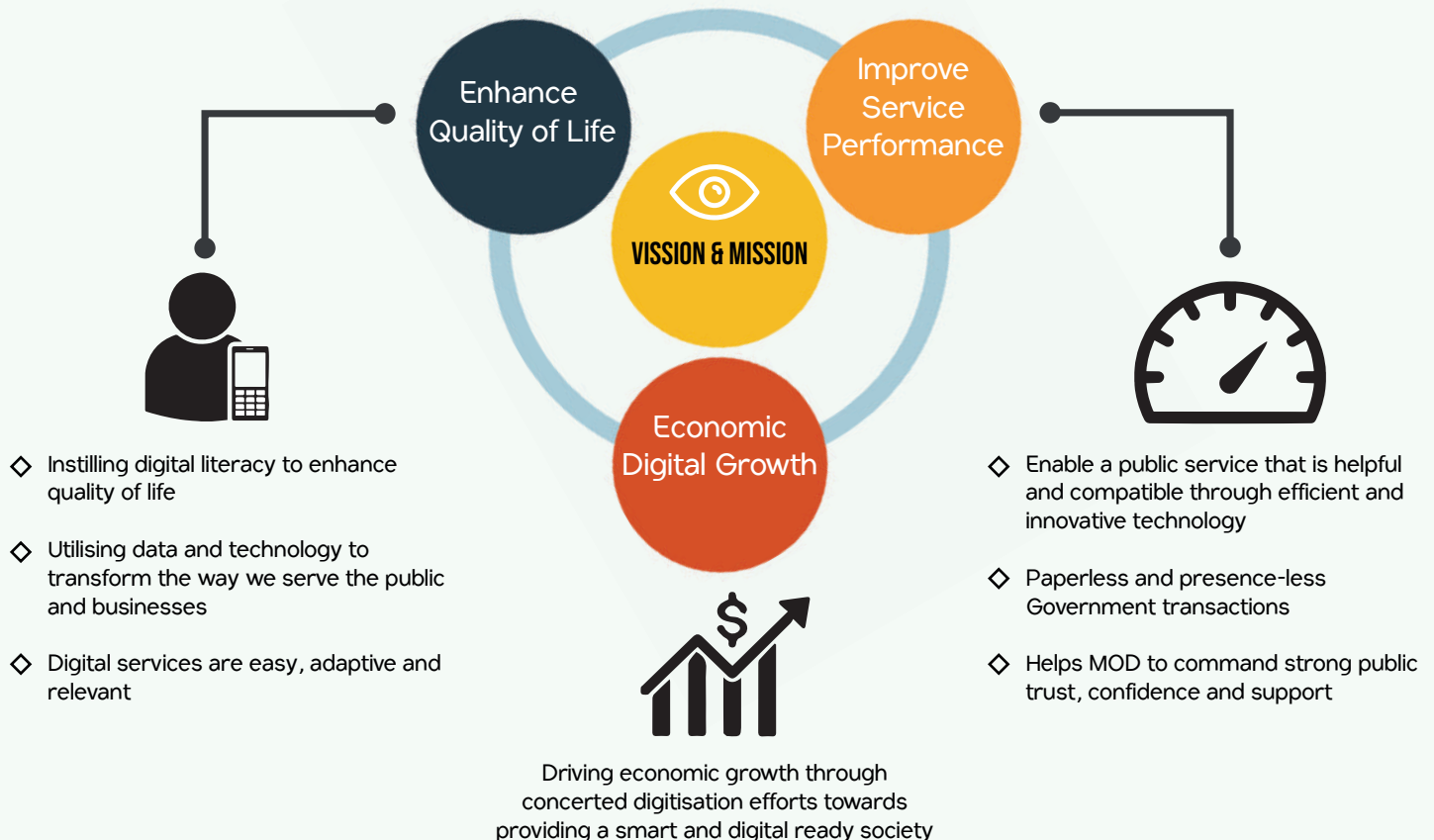
STRATEGIC PLAN 2018–2023 MINISTRY OF DEVELOPMENT

# DEFINITION



Improving service performance and provision of resilient smart infrastructure using intelligent solutions

SMART MOD anchors on the concept of connectivity for basic infrastructure fundamental facilities and systems such as roads, adequate water supply, affordable housing, waste management and sustainable infrastructure





```
require File.expand_path("../support/...", __FILE__)
Prevent database truncation if the environment is test
report("The Rails environment is running: #{ENV['RAILS_ENV']}")

require 'spec_helper'
require 'rspec/rails'

require 'capybara/rspec'
require 'capybara/rails'

Capybara.javascript_driver = :webkit
Category.delete_all; Category.create
Shoulda::Matchers.configure do |config|
  config.integrate do |with|
    with.test_framework :rspec
    with.library :rails
  end
end
```

# DRIVERS OF PRODUCTIVITY

22 # Requires supporting files by default. The user can override this by providing a path to the support files.  
23 # spec/support/ and its subdirectories are added to the load path by default.



## RESILIENT INFRASTRUCTURE ASSET

Technological investment  
by utilizing IoT and Smart  
Sensors



1



2



## EFFICIENT PUBLIC SERVICES

Create and improvise  
content and services  
to connect with the  
public and businesses

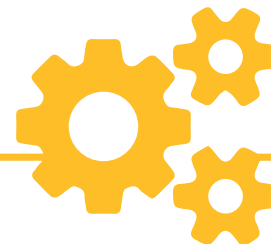


## ENHANCE STAKEHOLDER ENGAGEMENT

Meaningful engagement  
with relevant  
stakeholders to Assess,  
Improve and Repeat  
(AIR)



3



# ENABLERS



“ To drive and enhance  
Brunei Darussalam’s socio-economic  
growth through Digital Transformation

”

DIGITAL ECONOMY MASTER PLAN 2025 MISSION

1



## EFFECTIVE POLICIES AND GOVERNANCE

- ◆ Strengthening integration between policy, operations and technology

2



## INTEGRATED DATA SHARING

- ◆ Interoperable and customized
- ◆ Data platform of common digital services and infrastructure among Government agencies

3



## IT UPSKILLING

- ◆ Skills, confidence and motivation to use technology
- ◆ Empowered and digitally-ready workforce supported by digital workplace and digital tools

4



## RESEARCH & DEVELOPMENT

- ◆ Supporting R&D activities in alignment with digitization efforts
- ◆ Assessment on user-design and experience











**SMART INFRASTRUCTURE**

**SMART DIGITAL SERVICES**

**SMART ENVIRONMENT**

---



SMART  
INFRASTRUCTURE


## DEFINITION

Using smart digital solutions to gather real-time and predictive data of infrastructure assets in ensuring optimum performance

## STRATEGY


- 1

**Non-Revenue Water**




Developing a systematic smart water network and monitoring real-time leakages or water disruptions
- 2

**Unified Smart Metering Solution**




Water usage data accessible via apps for consumers
- 3

**Enhancing Catchment Network & Flood Prone Areas**




Introducing a smart catchment network to provide early warning information
- 4

**Systematic Sewerage**




Introducing a smart sewer monitoring system to provide real-time data & early warning alerts
- 5

**Road & Bridge Management System**




Monitoring system in ensuring road safety and structural integrity of bridges

## 4 MAIN COMPONENTS OF SMART INFRASTRUCTURE

- 


**SAFETY**

Utilising smart sensors to enable improved monitoring and planning by identifying non-compliances or maximum threshold before incoming disasters




**SPEED**

Real-time alerts and immediate issuance of work orders to resolve problems



**COST SAVING**

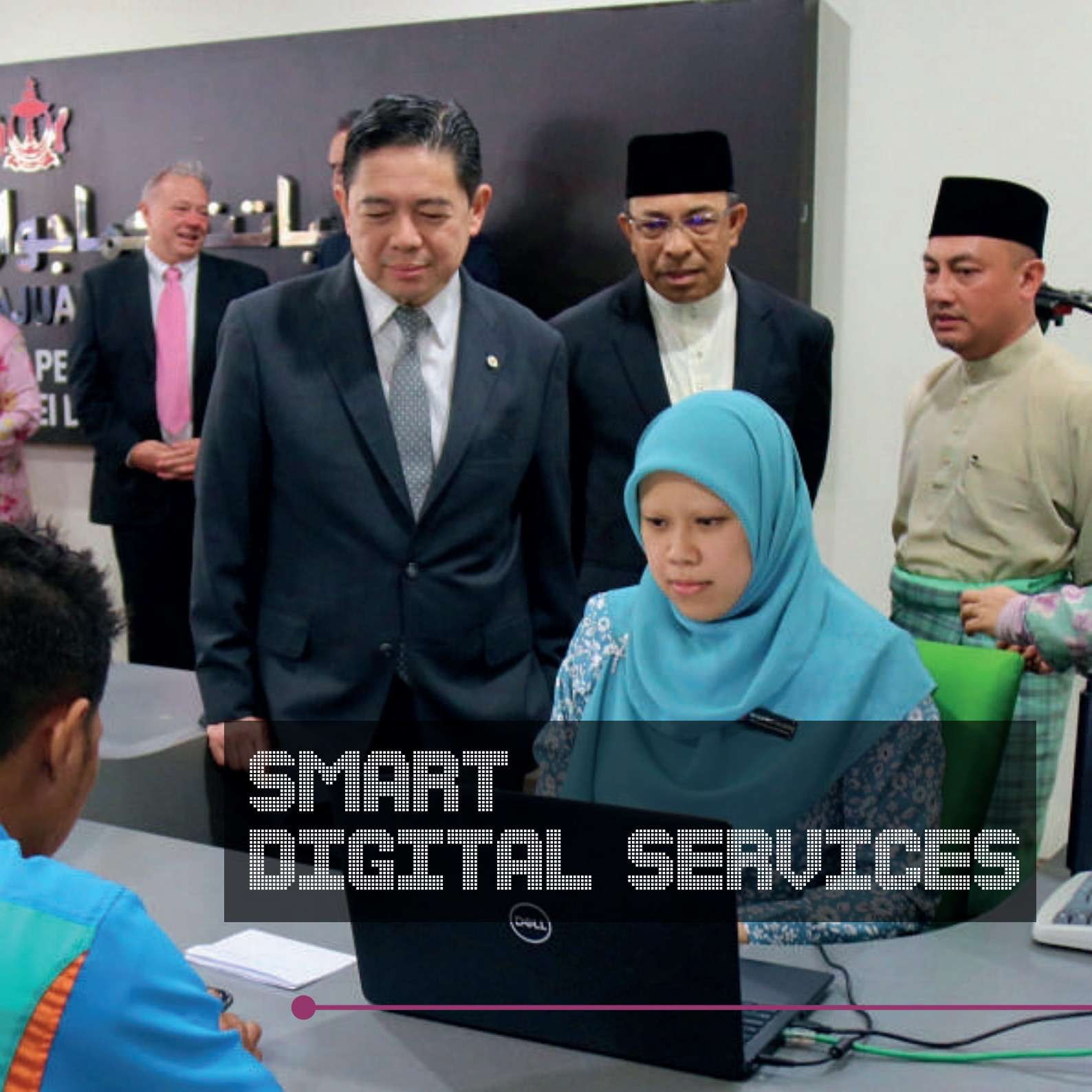
Operational cost saving and management of financial budget



**ENHANCEMENT  
QUALITY OF LIVING**

Improving the quality of life through digitization processes





# SMART DIGITAL SERVICES



## DEFINITION

Electronic delivery of information and services to the public

## STRATEGY

1

Integrated  
Public Service  
Delivery



Consolidation of online services that shall include but not limited to online registration, customer support, online billing, optimized search engine, digital signatures and automated notifications

2

Secure  
e-Payment



Convenience of completing government transactions through adaptive and secure digital platforms





SMART  
ENVIRONMENT

## DEFINITION

Environment management solutions through utilization of smart technologies

## STRATEGY







# FLAGSHIP PROGRAMMES





كَمَنْتَرِين قَمْبَاخُون  
KEMENTERIAN PEMBANGUNAN  
"Bersedia Berkhidmat"

FLAGSHIP  
PROGRAMME

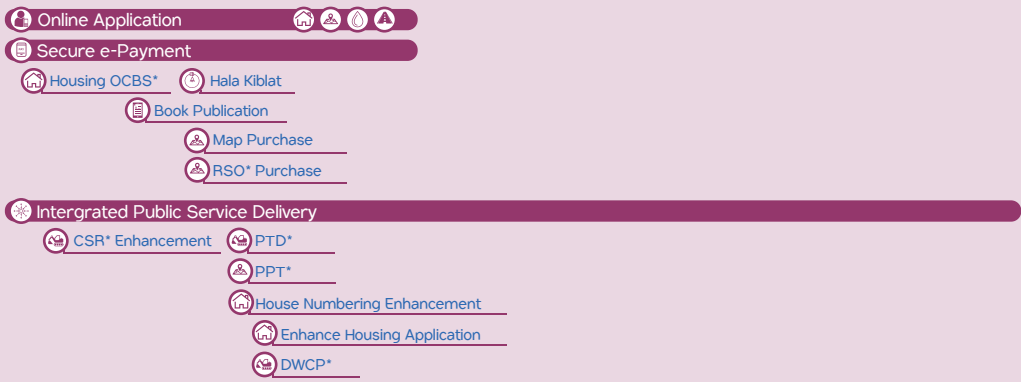




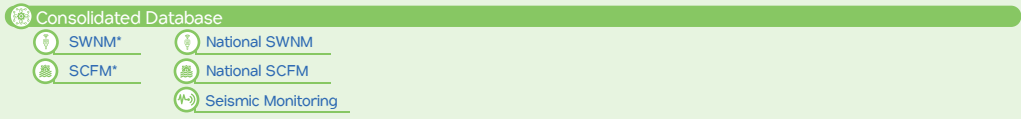
**SMART INFRASTRUCTURE**



**SMART DIGITAL SERVICES**



**SMART ENVIROMENT**



SSDI - Survey Spatial Data Infrastructure  
 CORS - Continuously Operating Reference Stations  
 OCBS - One Common Billing System  
 RSO - Rectified Skew Orthomorphic  
 CSR - Contractor Supplier Record System

PTD - Permit to Dig  
 PPT - Penyatuan dan Pemecahan Tanah  
 DWCP - Dealing with Construction Permit  
 SWNM - Smart Water Network Monitoring  
 SCFM - Smart Catchment & Flood Monitoring



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ISBN 978-99917-955-5-3



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