



Digital Transformation Roadmap for Public Finance Management

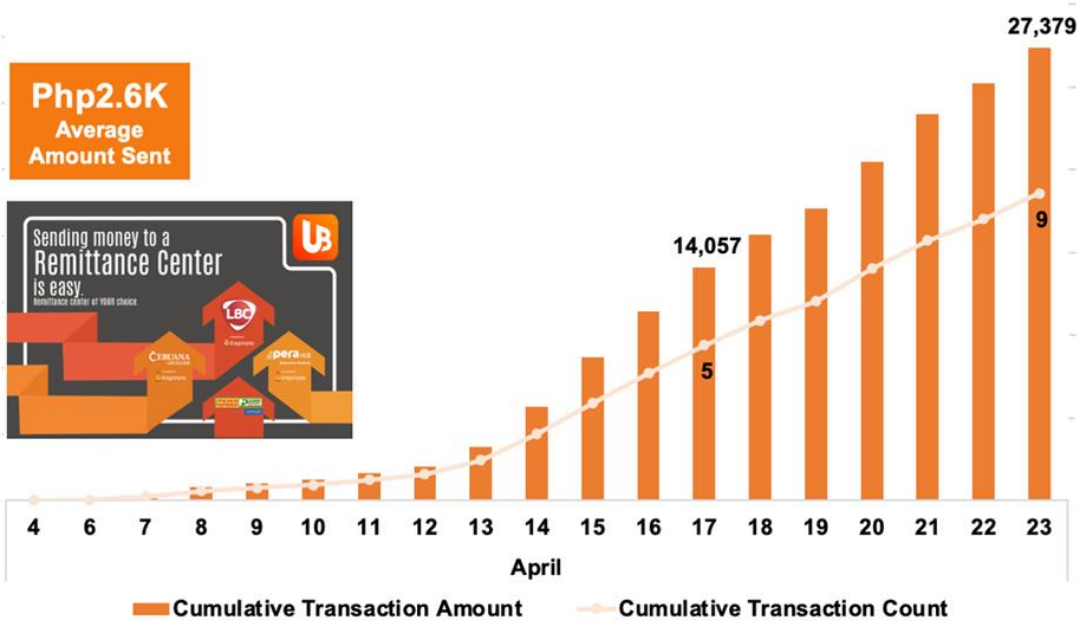
MARIA FRANCESCA M. DEL ROSARIO
Chief Information Officer



BAGONG PILIPINAS

3rd PAGBA Quarterly Seminar and Meeting
Cebu city, Waterfront Hotel
15 November 2023

Cash Out Remittance (in Thousands)



SC, UnionBank Sign MOA on Judiciary ePayment Solution
March 18, 2021

The Supreme Court of the Philippines signed a Memorandum of Agreement with Union Bank of the Philippines (UnionBank) on March 15, 2021 for Unionbank to develop an ePayment solution for the Judiciary.

The Judiciary ePayment Solution will involve an application designed to provide the courts the options to receive fees and payments digitally from litigants, their counsels and representatives in a safe, secure, real-time, 24/7 basis from anywhere at their convenience.

Led by Chief Justice Diosdado M. Peralta during the signing of the MOA, the Project will be greatly beneficial to the courts and the general public as it will streamline the processes on the assessment and payment of court fees. Court Administrator Jose Mitas P. Marquez and UnionBank Board Vice-Chair Dr. Justo

Latest News

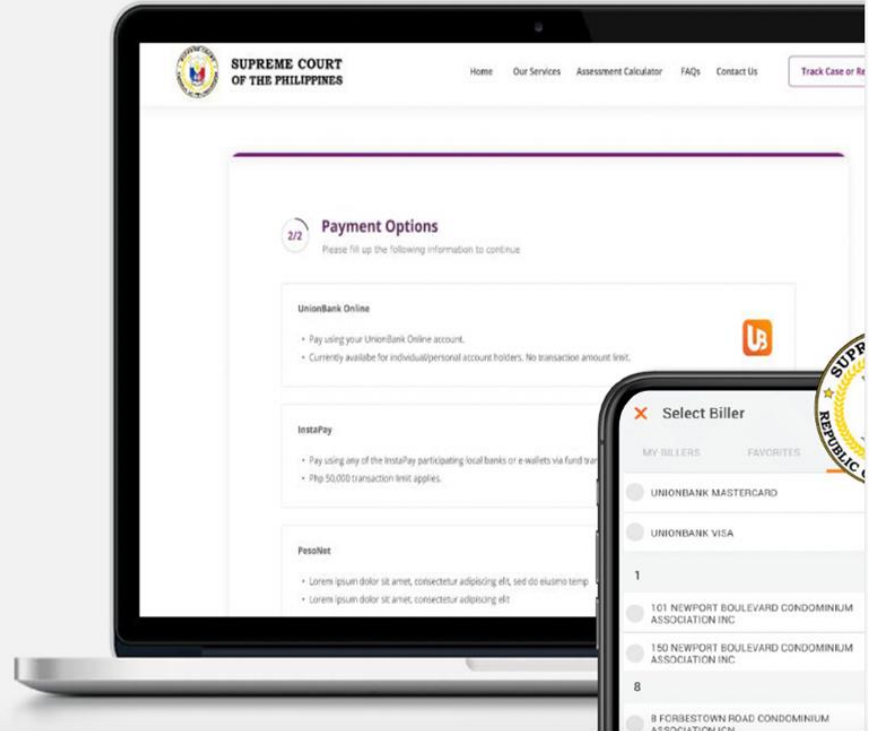
Chief Justice Gesmundo Reiterates Plan for the Judiciary before Philippine Bar Association
June 18, 2021

Retired CJ Peralta Lectures on Rules of Civil Procedure
June 17, 2021

SC Upholds MMDA's Authority, Dismisses Petition for Injunction Against Traffic Scheme
June 17, 2021



Payment Gateway Aggregator for all Legal Fees from bar takers, lawyers, law firms and litigants





BUDGET OPERATIONS SERVICE

July 26, 1960

MEMORANDUM for -
All Supervisors
Budget Operations Service

Quoted hereunder is the Memorandum, dated today, of the Administrative Officer V of our Office for action and compliance:

"Please submit to the Administrative Division not later than August 15, 1960 a narrative statement of the accomplishments of your respective services, divisions, staffs, etc., during the Fiscal Year ending June 30, 1960, together with your recommendations, for inclusion in our Annual Report to the President for Fiscal Year 1960."

ALFREDO MENDOZA
Acting Chief
Budget Operations Service

Copy furnished:

Mr. Latorre _____	Mr. Delosung _____
Mr. Tubos _____	Mr. Castro _____
Mr. Topacio _____	Mr. Lonsang _____
	Mr. Agosoll _____

Handwritten notes:
 7/26/60
 10/14/60
 10/14/60
 10/14/60
 10/14/60

RMA - 00035

To the Capital

Standards:

Mr. Agosoll, Chief, Income Tax
Div., Bureau of Int. Revenue

Mr. Maganoc, Chief, Conciliation
Service, Dept. of Labor

Mr. Sizon, Chief, Budget Div.,
Budget Commission

Mr. Sy Changco, Deputy
Commissioner of the Budget

Mr. Ambion, Professor of Law
Univ. of the Philippines

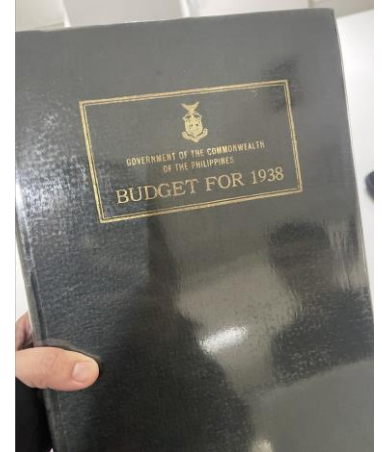
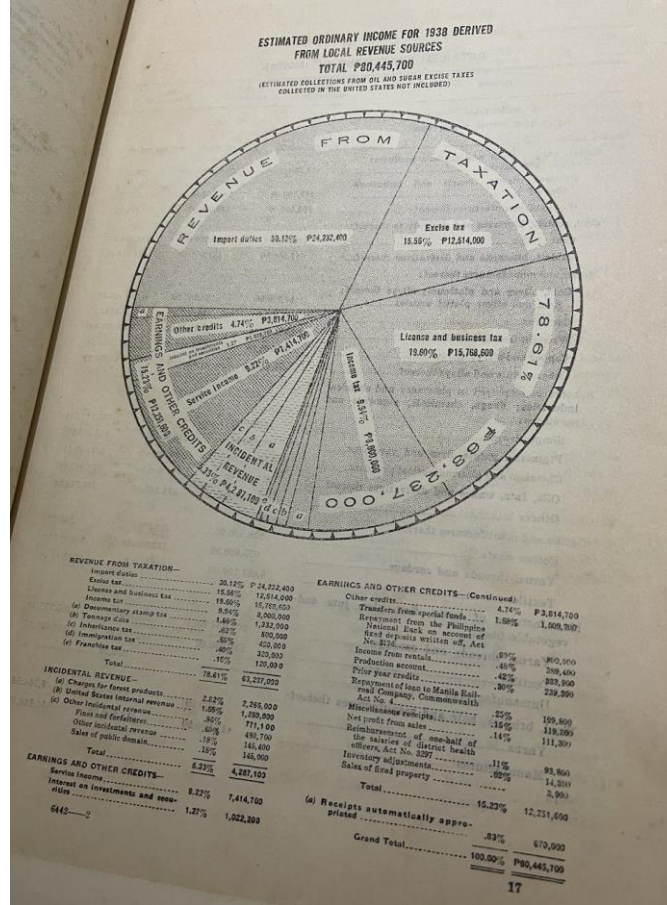
Kneeling:

Mr. Garingfao, Asst. to the
Manager Peoples' Homecraft
Corporation

Mr. Bravo, Supervising Account-
ing Officer, Budget Service

BUDGET COMMISSION
LIBRARY





Agenda

- 1 2022 GovTech Maturity Index**
- 2 Designing Public Finance Management Architecture
- 3 RegTech / GovTech

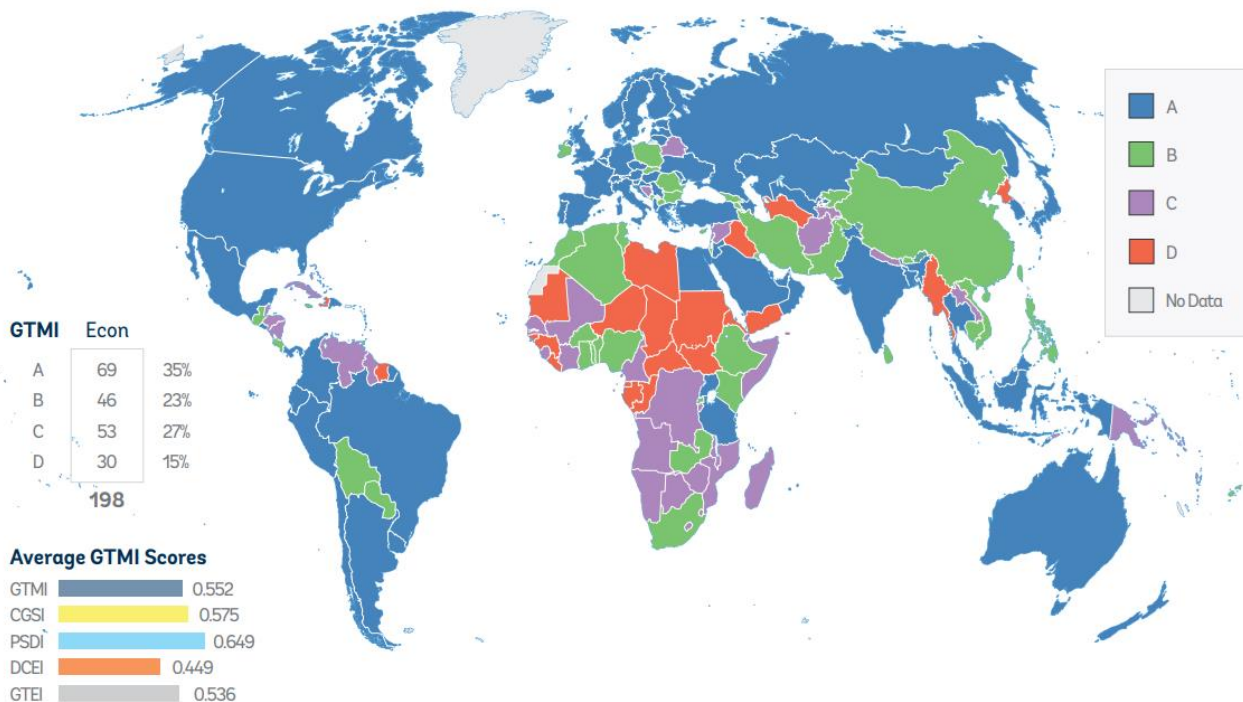
“If we use _____ technology,
name your favorite tech buzz word
our _____ will be
indicate any PFM problem here
solved.”

**... but which problem?
... but which technology?**

State of GovTech around the world, by GTMI groups, 2022

The goal is for the **Philippines** to be **blue** in the next 5 years

2022 GovTech Maturity Index



Source: World Bank data (198 economies).

Note: GTMI = GovTech Maturity Index, CGSI = Core Government Systems Index, PSDI = Public Service Delivery Index, DCEI = Digital Citizen Engagement Index, GTEI = GovTech Enablers Index.



CGSI

- captures the key aspects of a whole of-government approach, including **government cloud, interoperability framework, and other platforms**

Ind	GTMI Key indicators
Core Government Systems Index (CGSI)	
I-1	Is there a cloud platform available for all government entities?
I-2	Is there a government enterprise architecture framework?
I-3	Is there a government interoperability framework?
I-4	Is there a government service bus platform?
I-5	Is there an operational FMIS in place to support core PFM functions?
I-6	Is there a TSA supported by FMIS to automate payments and bank reconciliations?
I-7	Is there a Tax Management Information System in place?
I-8	Is there a Customs Management Information System in place?
I-9	Is there a Human Resources Management Information System with self-service portal?
I-10	Is there a Payroll System (MIS) linked with HRMIS?
I-11	Is there a Social Insurance system providing pensions and other SI programs?
I-12	Is there an e-Procurement portal?
I-13	Is there a Debt Management System (DMS) in place? (Foreign and Domestic debt)?
I-14	Is there a Public Investment Management System (PIMS) in place?
I-15	Is there a government Open-Source Software (OSS) policy/action plan for public sector?
I-16	UN Telecommunication Infrastructure Index (TII)
I-17	Does government have a national strategy on disruptive / innovative technologies?



PSDI

- maturity of online public service portals, with a focus on citizen centric design and universal accessibility.

DCEI

- public participation platforms, citizen feedback mechanisms, open data, and open government portals

Public Service Delivery Index (PSDI)

I-18	UN Online Service Index (OSI)
I-19	Is there an online public service portal? (Also called "One-Stop Shop" or similar)
I-20	Is there a Tax online service portal?
I-21	Is e-Filing available for tax and/or customs declarations?
I-22	Are e-Payment services available?
I-23	Is there a Customs online service portal (Single Window)?
I-24	Is there a Social Insurance/Pension online service portal?
I-25	Is there a Job portal?
I-26	Is there a digital ID that enables remote authentication for (fully) online service access

Digital Citizen Engagement Index (DCEI)

I-27	UN E-Participation Index (EPI)
I-28	Is there an Open Government web site / portal?
I-29	Is there an Open Data portal?
I-30	Are there national platforms that allow citizens to participate in policy decision-making?
I-31	Are there government platforms that allow citizens to provide feedback on service delivery?
I-32	Does the government publish its citizen engagement statistics and performance regularly?



GTEI

- captures strategy, institutions, laws and regulations, digital skills, and innovation policies and programs, to foster GovTech

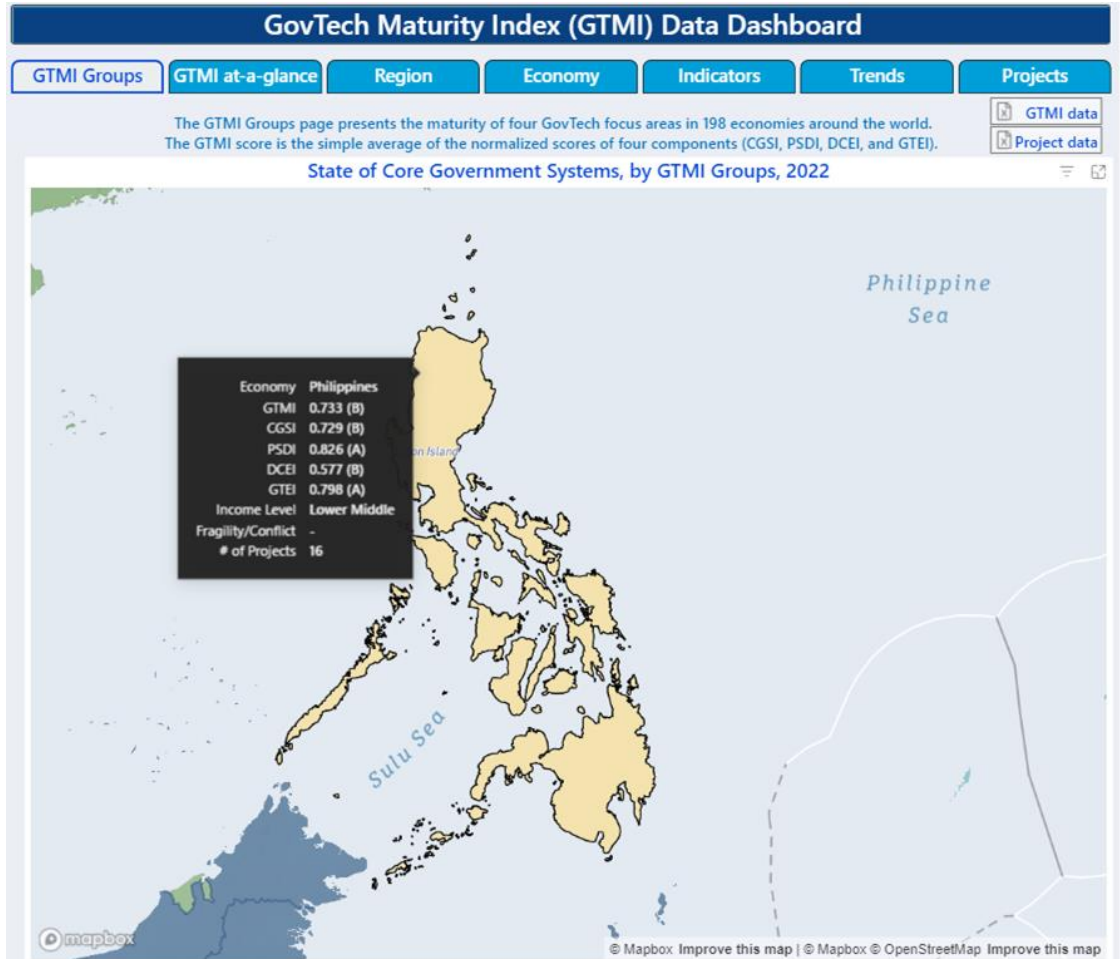
GovTech Enablers Index (GTEI)

- I-33 Is there a government entity focused on GovTech (digital transform, whole-of-government)?
- I-34 Is there a dedicated government entity in charge of data governance or data management?
- I-35 Is there a GovTech / digital transformation strategy?
- I-36 Is there a whole-of-government approach to public sector digital transformation?
- I-37 Are there RTI laws to make data/information available to the public online or digitally?
- I-38 Is there a data protection / privacy law?
- I-39 Is there a data protection authority?
- I-40 Is there a national ID (or similar foundational ID) system?
- I-41 Are records in the national ID system stored in a digitized (electronic) format?
- I-42 Is there a digital signature regulation and PKI to support service delivery?
- I-43 ITU Global Cybersecurity Index (GCI)
- I-44 UN Human Capital Index (HCI)
- I-45 Is there a government strategy / program to improve digital skills in the public sector?
- I-46 Is there a strategy and/or program to improve public sector innovation?
- I-47 Is there a government entity focused on public sector innovation?
- I-48 Is there a government policy to support GovTech startups and private sector investments?



The Philippines scored highest in Public Service Delivery Index (**PSDI**) and GovTech Enablers Index (**GTEI**) with the rank of **A** and the rest of the indicators with a rank of **B**.

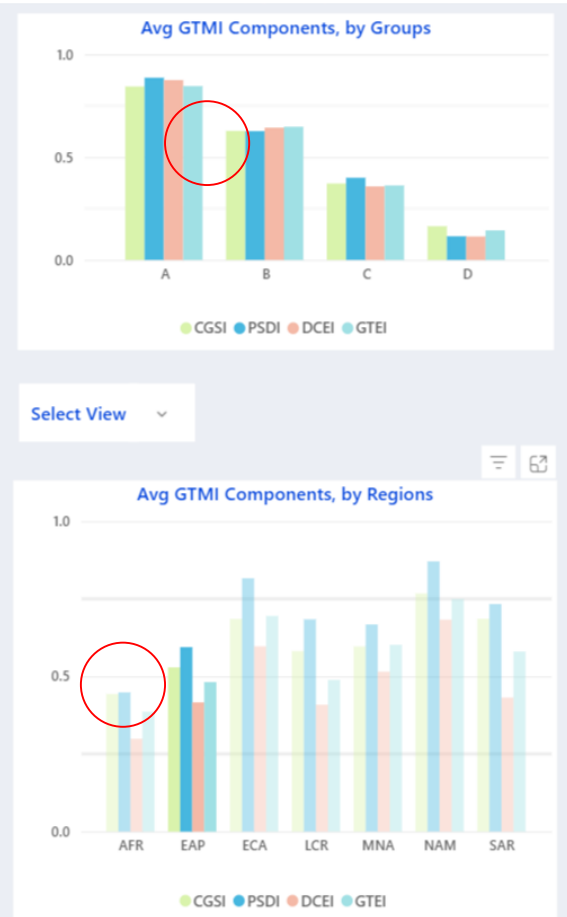
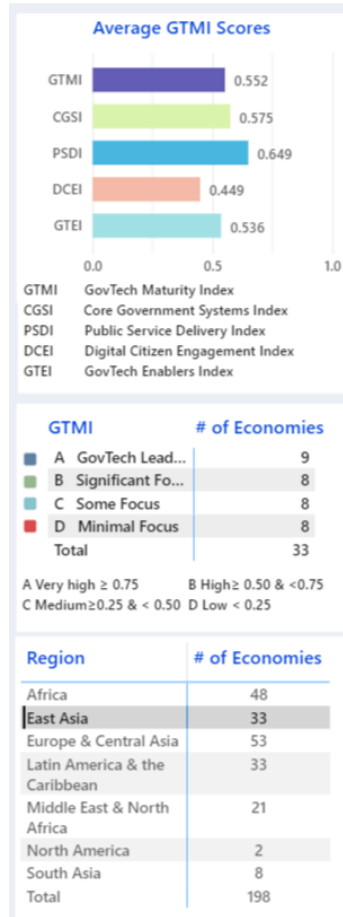
- A - GovTech Leaders
- B - Significant Focus
- C - Some Focus
- D - Minimal Focus



The Philippines scored highest in Public Service Delivery Index (**PSDI**) and GovTech Enablers Index (**GTEI**).

Public Service Delivery Index (**PSDI**) - PH as part of the B group based on Avg GMTI Components

GovTech Enablers Index (**GTEI**) - PH as part of the East Asia and the Pacific region



Agenda

- 1 2022 GovTech Maturity Index
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- 3 RegTech / GovTech



STRATEGY



VOICE OF GOVERNANCE

Bongbong Marcos team presents 8-point economic agenda

Philippine Development Plan (PDP) 2023-2028

REPUBLIC OF THE PHILIPPINES OPEN GOVERNMENT PARTNERSHIP

Secretary Amanah F. Pangandaman

GOVTECH TRENDS

- DATA SCIENCE**: Icon of three vertical bars of increasing height.
- CUSTOMER 360**: Icon of a circle with '360°' inside.
- AP I**: Icon of a hand holding a tablet with a building on the screen.
- ARTIFICIAL INTELLIGENCE**: Icon of a brain with circuit-like patterns.
- ONE PORTAL**: Icon of a square with a smaller square inside.
- ROBO ASSIST**: Icon of a stylized robot head.
- BLOCKCHAIN**: Icon of a shopping cart, a padlock, and a document.

A Day In A Life of a Budget Analyst



Single Portal

Budget Cycle Analytics

Self-Service Dashboard



Omnichannel Service

Robo Assistant

Open Governance



Smart Budget

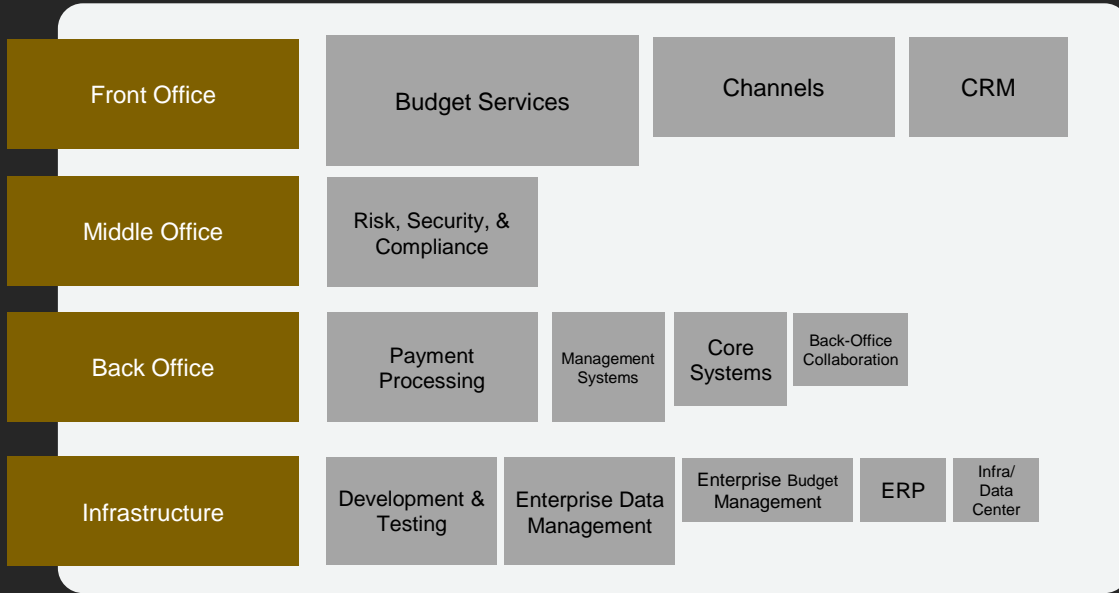
AI Customer Service

Enhanced Single Customer View





DIGITAL BUDGET & MANAGEMENT



- Identity & Access
- Selfie KYC
- Facial Biometrics
- Chatbot
- FPRB Models
- Forward Estimates
- Market Outlook
- Right Sizing
- Helpdesk
- Robo Assist
- Omnichannel
- Property Management
- Fleet Management
- PFM Assessment



DIGITAL BUDGET & MANAGEMENT

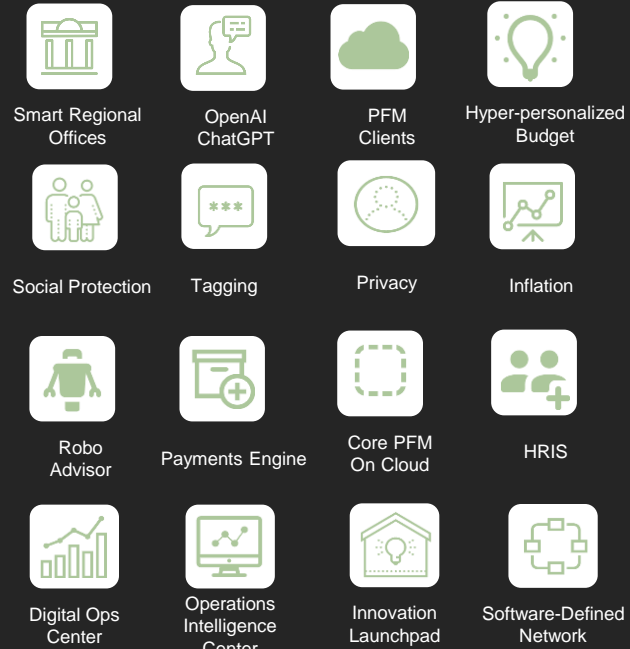
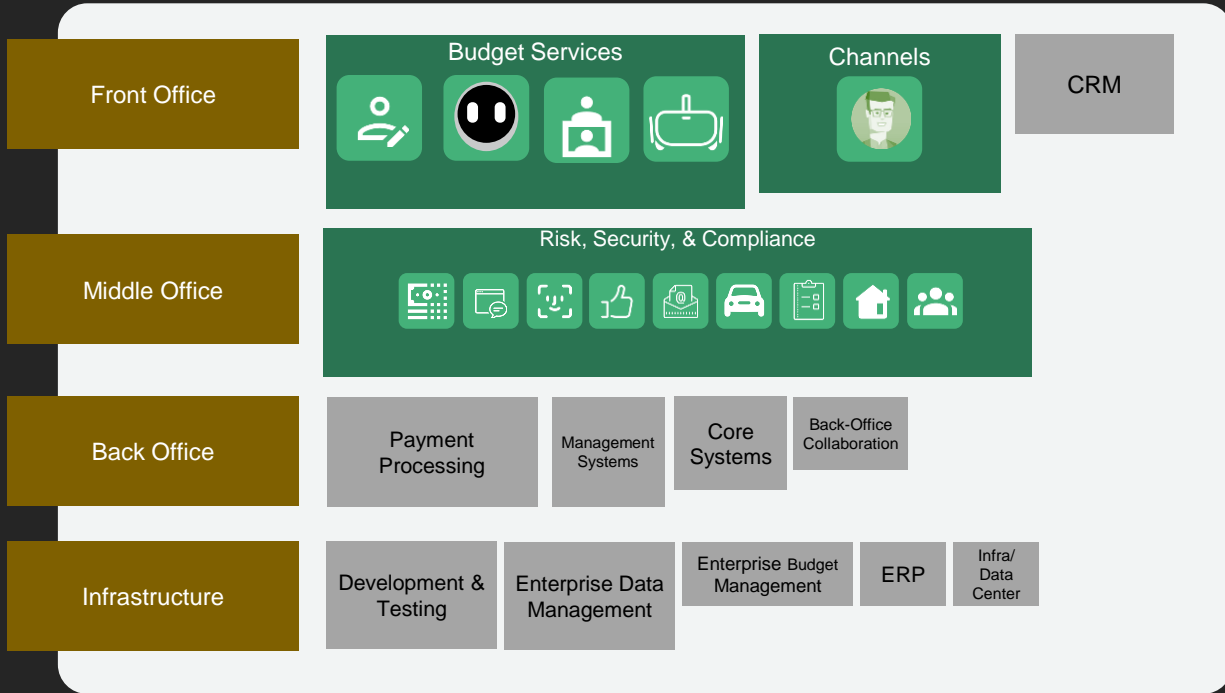
AWARENESS

ACTIVE

OPERATIONAL

SYSTEMIC

TRANSFORMATIONAL



Information and Communications Technology Group



DIGITAL BUDGET & MANAGEMENT

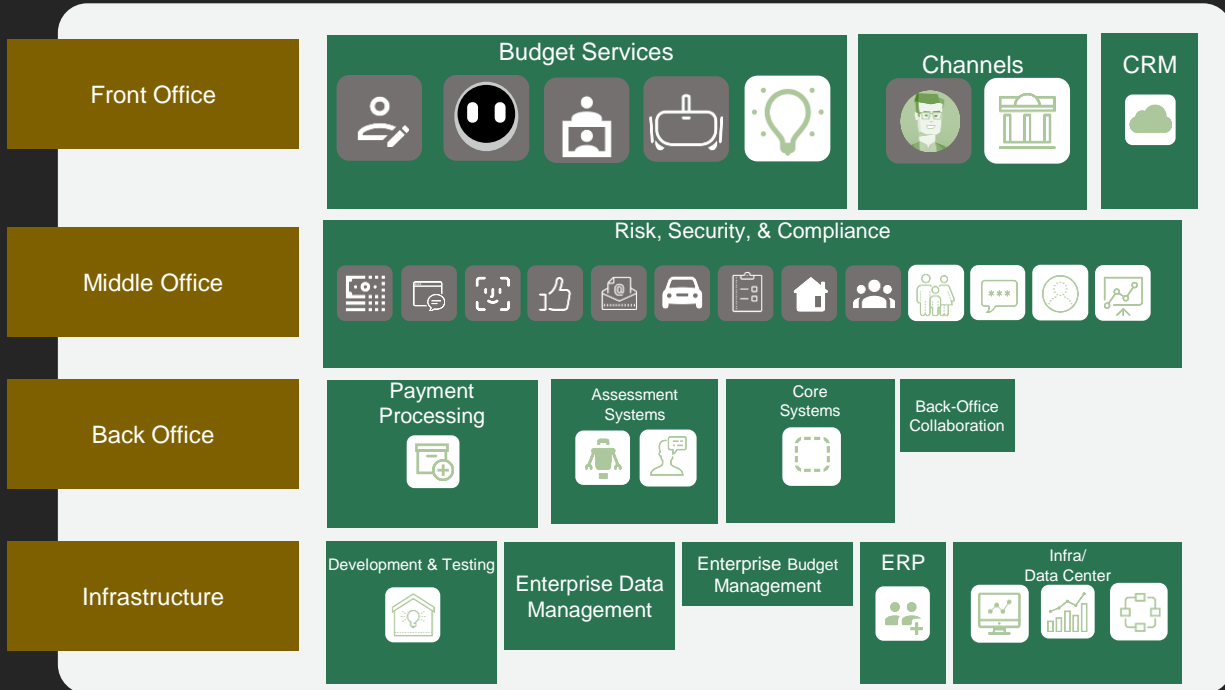
AWARENESS

ACTIVE

OPERATIONAL

SYSTEMIC

TRANSFORMATIONAL





DIGITAL BUDGET & MANAGEMENT

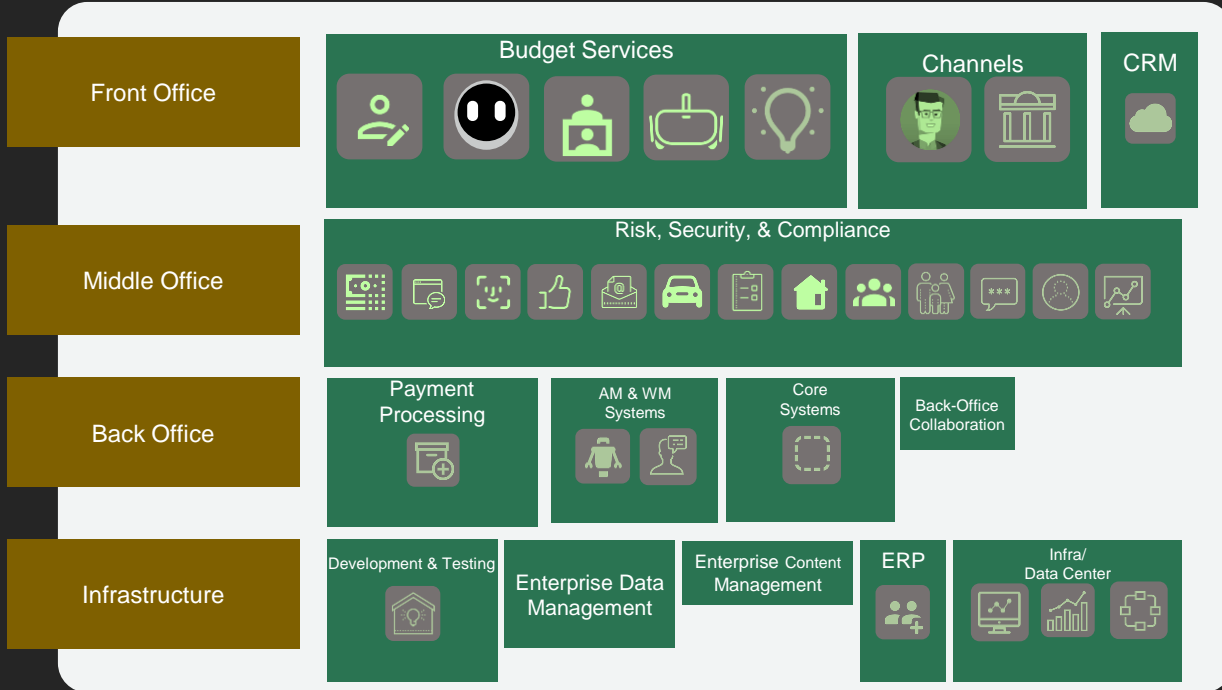
AWARENESS

ACTIVE

OPERATIONAL

SYSTEMIC

TRANSFORMATIONAL



Designing PFM Architecture



FROM CHALLENGES

- 1 High logistic cost**
on delivering hard copy of documents to DBM-CO/RO
- 2 Lost documents (risk)**
due to manual submission and approval routing
- 3 Manual follow-ups**
on submission updates through phone or e-mail
and
Delayed communications
on request approvals, budget releases, reports
- 4 Labor-intensive validations**
based on previous documentations in hard copies

TO OPPORTUNITIES

- Zero** delivery cost
through online document submission and acknowledgement
- Secure & centralized** document copies
in online document management platform
- Automatic** project updates
through defined notifications in the system
- System-based** eligibility check
for previous fund recipients, governance

Designing PFM Architecture



LGU

CHECK
eligibility

*for previous
LGSF recipients
from 2016 - 2021*

Document upload for compliance to pertinent documentary requirements (i.e. fund utilization, project completion)

INITIATE
request

Data entry for project details

File upload for required and supporting documents

Acknowledgment of SBR and document submission

DBM

**REVIEW &
ASSESS**
request

Form and document availability for review and assessment

Approve/Return/Reject buttons for decision log

Notifications for next approver/requestor

RELEASE
budget

Report generation for budget releases, etc.

Notifications for requestor and concerned agencies

LGU, DBM

MONITOR
project

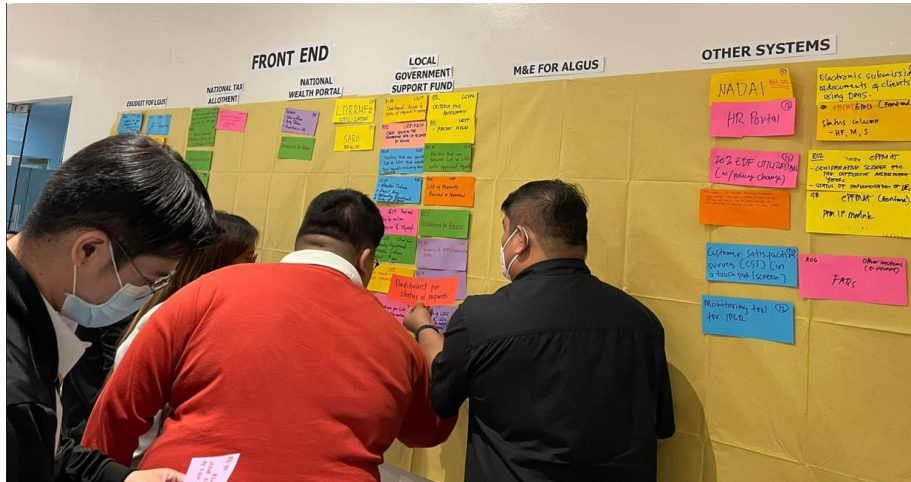
Data entry for project updates

File upload for pertinent documents

Possible integration with other related monitoring platforms

*NOTIFICATIONS + DATA/DOCUMENT MANAGEMENT
defined for specific events*

Designing PFM Architecture



Design Thinking Workshop with Regional Directors

Designing PFM Architecture



Unified
Accounts Code
Structure

Laying Good
Foundation

Designing PFM Architecture

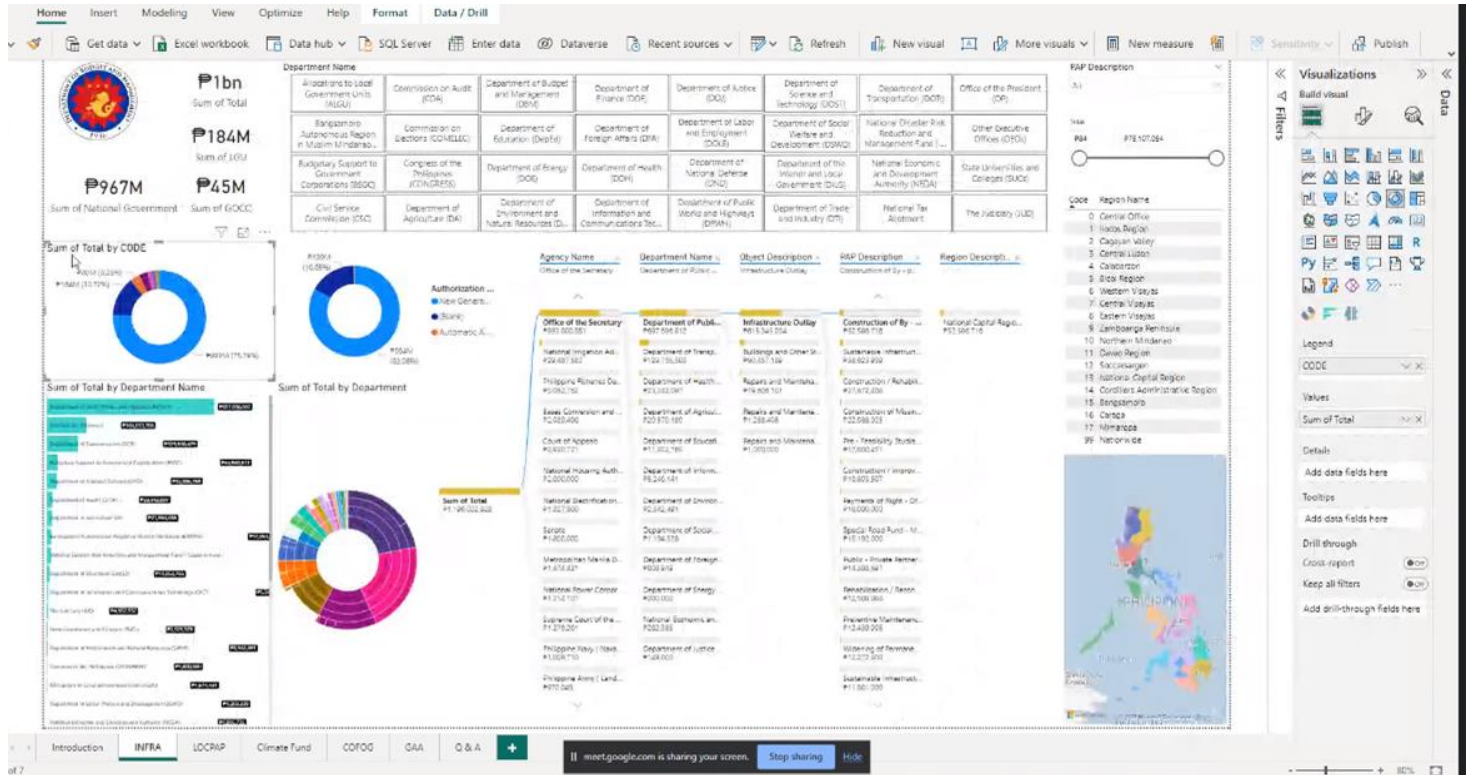


Data- Driven Government

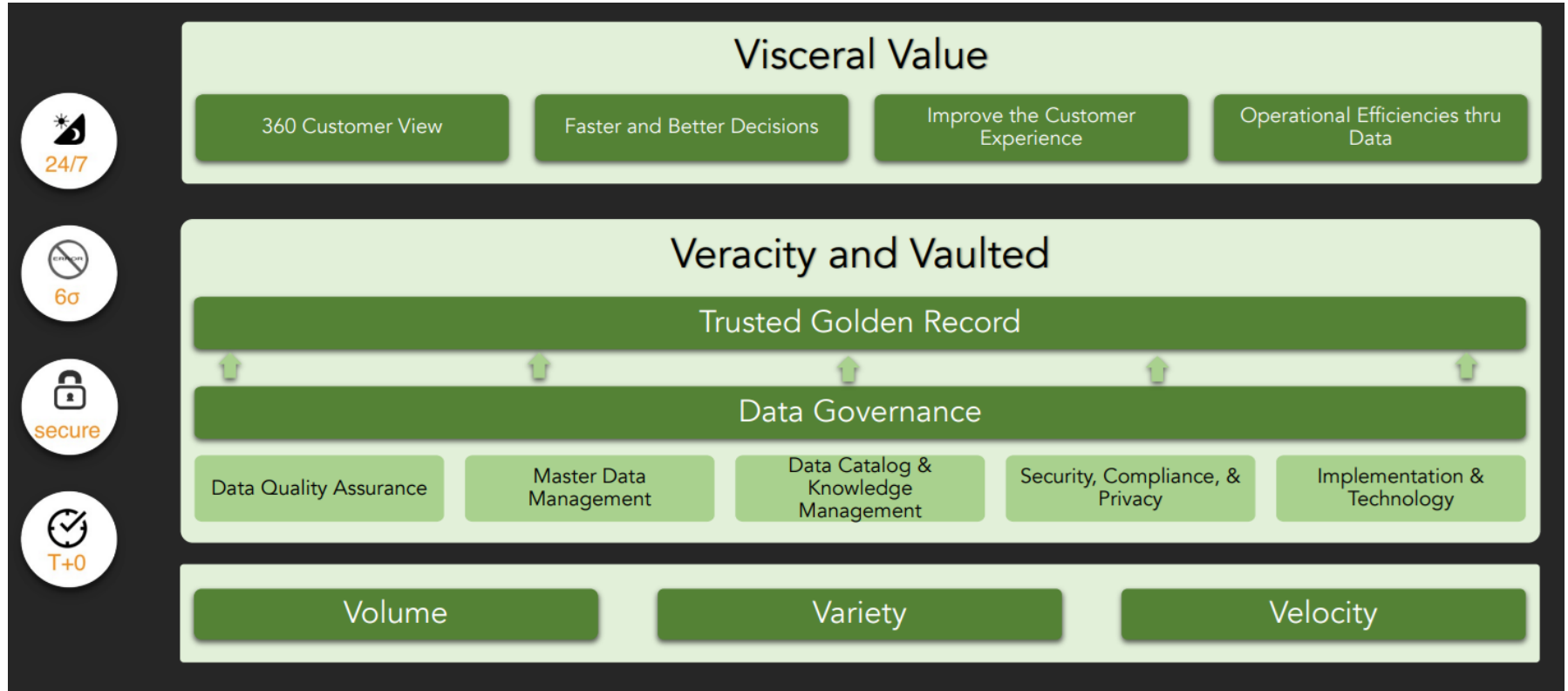


Designing PFM Architecture

Data- Driven Government



Data Governance Strategy



Enterprise Architecture



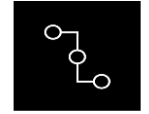
Enterprise Architecture =



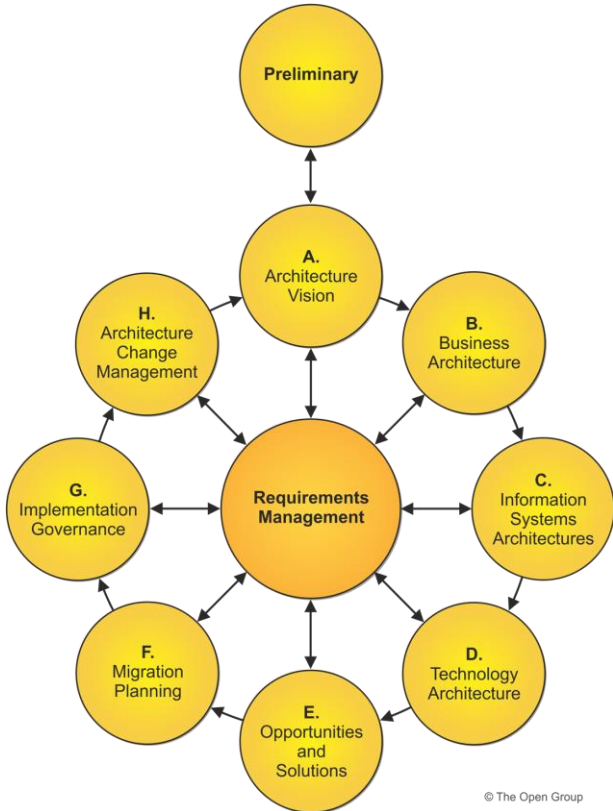
Strategy
↓
Strategic Objectives



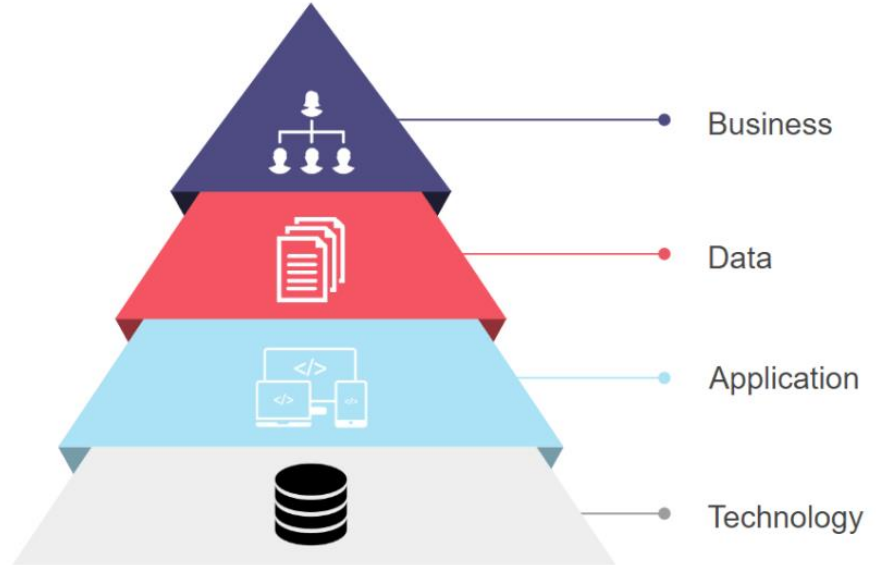
Business
↓
Business Model Principles



Technology & Process
↓
Technology Scaffolding



© The Open Group



Enterprise Architecture

Business Architecture



Aligns technology strategy to business strategy

Application Architecture



Connects enterprise and makes it consumable

Data Architecture



Provides fit-for-purpose and easy-to-use applications

Technology (Infrastructure) Architecture



Connects servers, networks and the cloud

Digital Transformation Roadmap



SHORT TERM (1-2 YEARS)

LONG TERM (2 YEARS ONWARDS)

THE HIGHWAYS

1 EO 55 (GIFMIS) AND EO 170 (DIGITAL PAYMENTS FOR GOVERNMENT DISBURSEMENTS) TECHNOLOGY IMPLEMENTATION

2 DBM SYSTEMS APPLICATION PROGRAMMING INTERFACE GATEWAY

IAAS

3 CLOUD TRANSFORMATION

CONVERGENT GOV HUB

CSAAS

4 WATCH TOWER: PFM INTEGRATED CYBERSECURITY AND COMMAND CENTER

PAAS

5 MASTER DATA MANAGEMENT

6 HUMAN RESOURCE & PAYROLL

7 PHILSYS API INTEGRATION

8 BUDGET AND TREASURY MANAGEMENT SYSTEM

9 DATA WAREHOUSING

THE FUNDING

10 PUBLIC PRIVATE PARTNERSHIP: OPEN API NETWORK / DIGITAL TAX BYPASS

11 BOC/BIR API AND DATA ENGINEERING INTEGRATION

THE EXECUTION

12 SINGLE SOURCE OF DATA REPORT GENERATION

POLICY

TECH



Digital Transformation Roadmap



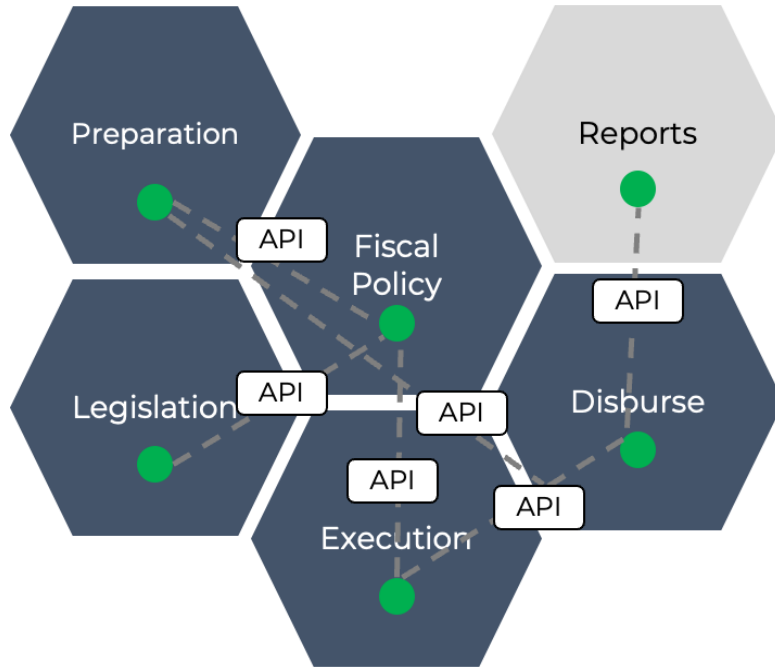
	FIRST PHASE				SECOND PHASE				THIRD PHASE			
	W1	W2	W3	W4	W1	W2	W3	W4	W1	W2	W3	W4
INTEGRATED FINANCIAL MANAGEMENT INFORMATION SYSTEM	Completed		Ongoing		Ongoing		Ongoing		Ongoing	Not Yet Started		Not Yet Started
CONVERGENT E-GOV HUB		Ongoing	Ongoing	Ongoing		Ongoing		Ongoing		Ongoing		Ongoing
MANAGED SERVICES	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing		Ongoing	Ongoing		Ongoing		Ongoing
EMERGING TECHNOLOGY		Ongoing		Ongoing	Ongoing	Ongoing	Ongoing	Ongoing		Ongoing		Ongoing
SINGLE SOURCE DATA MANAGEMENT	Ongoing	Ongoing			Ongoing		Ongoing		Ongoing		Ongoing	

COMPLETED
 ONGOING
 NOT YET STARTED



PFM Architecture and Scaffolding

Coreless
Integrated
Financial
Governance



Service Oriented Architecture

API Microservices

Plug & Play

Lego Architecture

Containers

Cloud-based

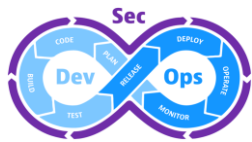
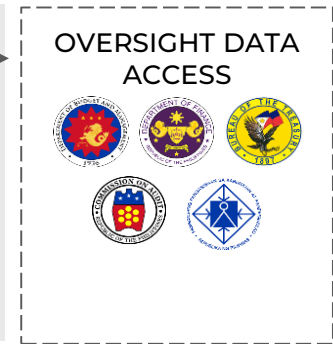
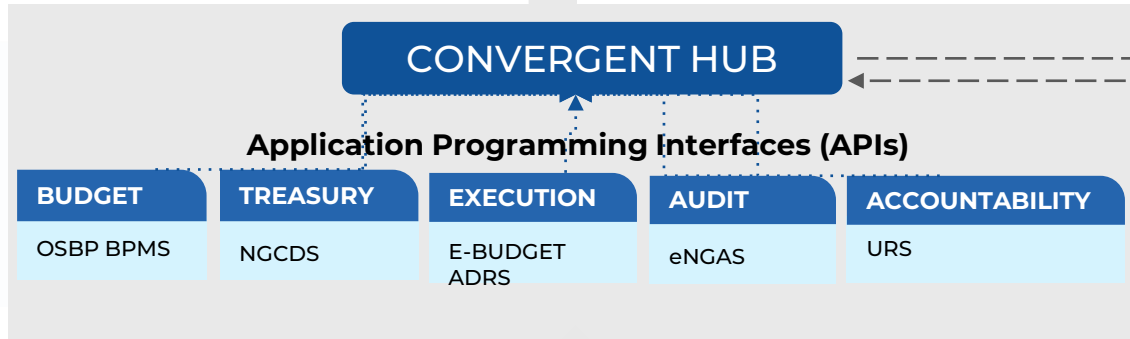
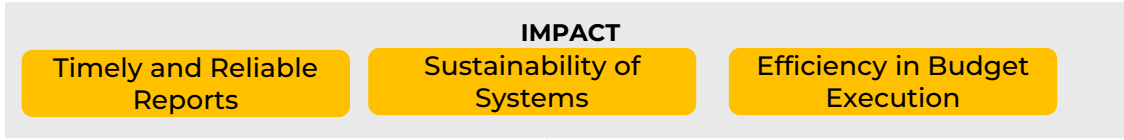
Business Process Automation
Workflow

Data Warehousing



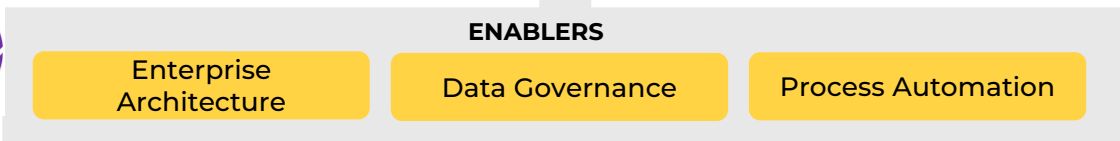
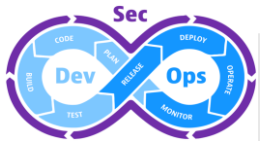
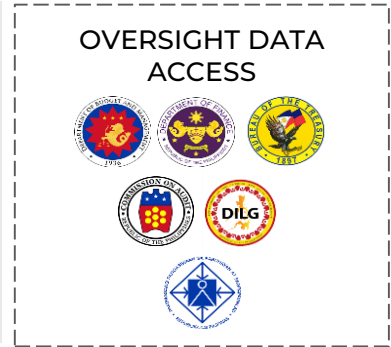
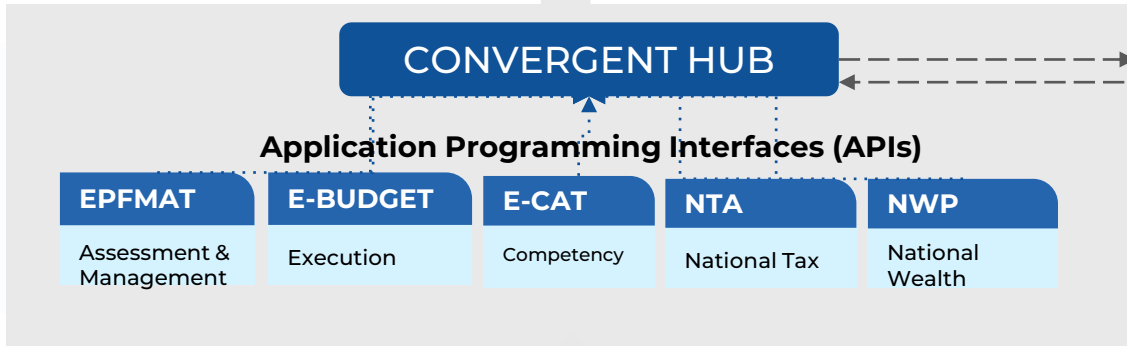
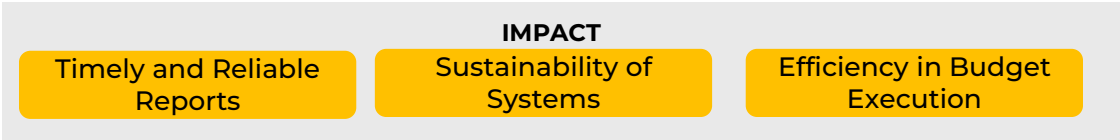
PFM Architecture and Scaffolding

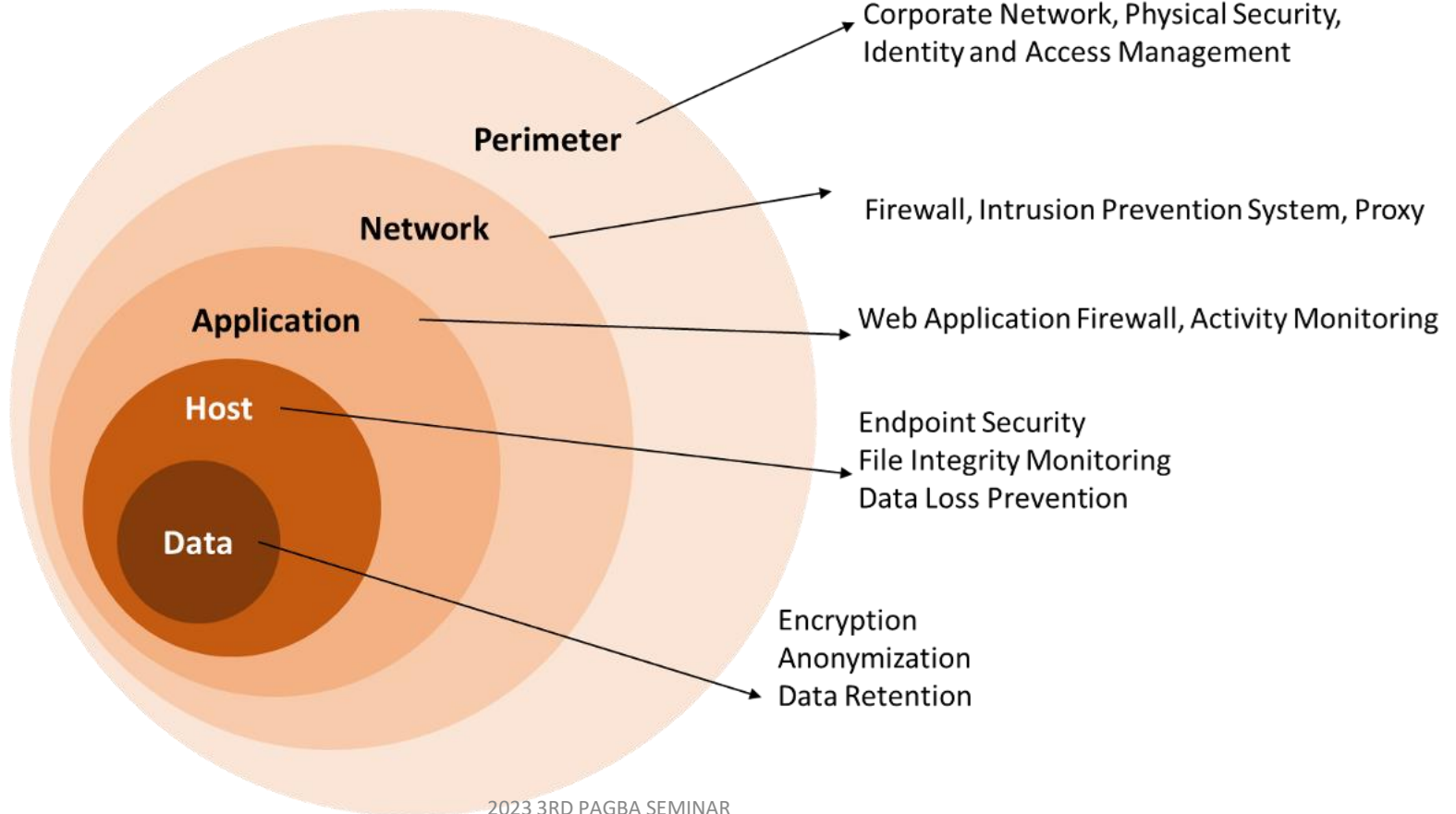
NATIONAL GOVERNMENT AGENCIES



PFM Architecture and Scaffolding

LOCAL
GOVERNMENT
UNITS





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- 2 Designing Public Finance Management Architecture
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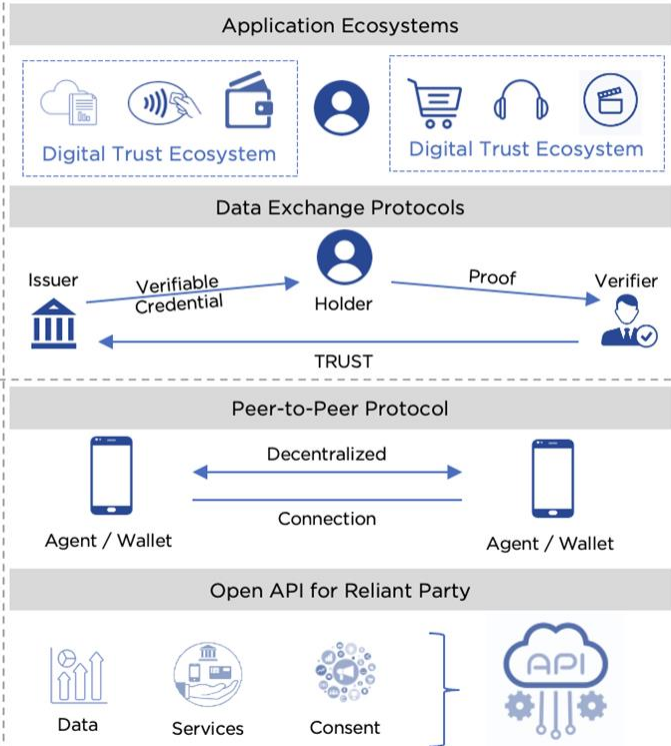
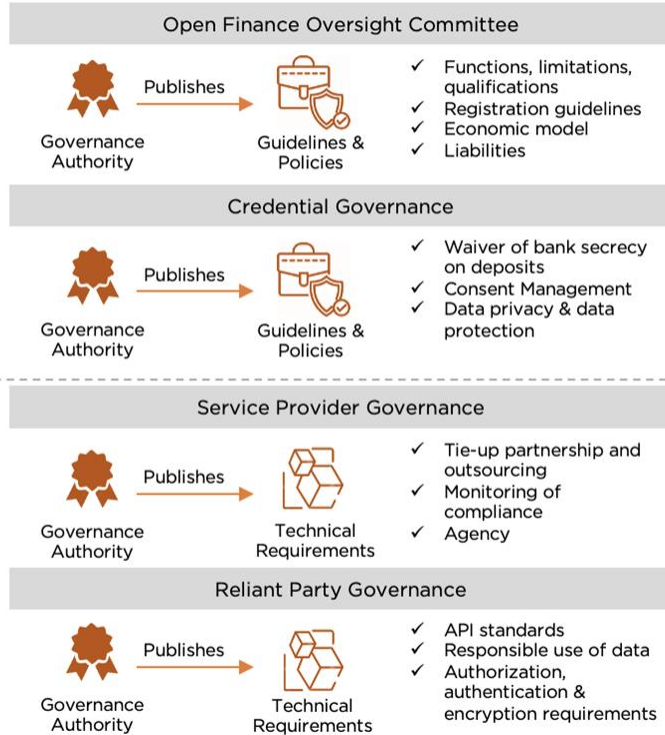
GovTech Framework

Governance

Technology

Human Trust

Technical Trust



PROJECT **MARISSA**

Authentication of Action Documents



Authentication Process



Application Interface



The application will tokenize SAROs, NCAs, GAROs, and other DBM related documents, representing them as unique digital tokens on the blockchain. This feature ensures the immutability and tamper-proof nature of the documents, establishing a secure and transparent record of their existence and history.



Tokenization:

- Special Allotment Release Order
- Notice of Cash Allocation
- General Appropriations Release Order
- Other DBM Related Documents through Private and Public Blockchain

Action Document Releasing System (ADRS)

ADRS - a web-based application which facilitates the release of approved DBM action documents in digital format directly to the authorized users of recipient agencies.

Department of Budget and Management
Action Document Releasing System (ADRS)

Home Admin Downloads Audits mjanerol@dbm.gov.ph

Downloads - SARO List
(Download Facility)

Department / Agency / Operating Unit: 06 001 0100000
Budget Year: 2022

Available On Hold

Retrieve

Search SARO Details Here..

Org Code	Department	Agency	Operating Unit	SARO Number	Date	Status	Action
060010100000	Department of Budget and Management (DBM)	Office of the Secretary	Central Office	SARO-BMB-C-22-0007714	09-05-2022	APPROVED	
060010100000	Department of Budget and Management (DBM)	Office of the Secretary	Central Office	SARO-BMB-C-22-0007479	08-31-2022	APPROVED	
060010100000	Department of Budget and Management (DBM)	Office of the Secretary	Central Office	SARO-BMB-C-22-0006970	08-17-2022	APPROVED	
060010100000	Department of Budget and Management (DBM)	Office of the Secretary	Central Office	SARO-BMB-C-22-0006969	08-17-2022	APPROVED	
060010100000	Department of Budget and Management (DBM)	Office of the Secretary	Central Office	SARO-BMB-C-22-0006274	08-03-2022	APPROVED	
060010100000	Department of Budget and Management (DBM)	Office of the Secretary	Central Office	SARO-BMB-C-22-0006273	08-03-2022	APPROVED	
060010100000	Department of Budget and Management (DBM)	Office of the Secretary	Central Office	SARO-BMB-C-22-0006272	08-03-2022	APPROVED	
060010100000	Department of Budget and Management (DBM)	Office of the Secretary	Central Office	SARO-BMB-C-22-0006271	08-03-2022	APPROVED	
060010100000	Department of Budget and Management (DBM)	Office of the Secretary	Central Office	SARO-BMB-C-22-0006270	08-03-2022	APPROVED	



REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF BUDGET AND MANAGEMENT
 General Solano Street, San Miguel, Manila
SPECIAL ALLOTMENT RELEASE ORDER
 For Fiscal Year 2022

Department : Department of Public Works and Highways (DPWH) ORG CODE
 Agency : Office of the Secretary 18 001 0100000
 Operating Unit : Central Office (85702)

Locality :
 Funding Source : Regular Agency Fund, Automatic Appropriations 01 1 04 102
 Retirement and Life Insurance Premiums

Purpose :
 To cover the additional FY 2022 Retirement and Life Insurance Premiums requirements.

MFO/PAP Code	Particulars	Object Code	Amount
100000100001000	General Administration and Support		
	General Management and Supervision		P 31,451,000
	Personnel Services	50100000,00	31,451,000
	TOTAL:		P 31,451,000

Amount in words:
 *** THIRTY-ONE MILLION FOUR HUNDRED FIFTY-ONE THOUSAND PESOS ONLY ***

Notes:
 The allotment herein released shall be valid for obligation until December 31, 2022.

The allotment herein authorized shall be used solely for the purposes indicated and disbursements therefrom shall be made in accordance with existing budgeting, accounting, and auditing rules and regulations. It is the primary responsibility of the head of the Department, Bureau or Agency concerned to keep expenditures within the limits of the amount allotted.

Signed By: Amenah F. Pangandaman
 Department Secretary
 C-PH, D-DBM, I-CN, Gov-Signing CA
 Date: September 30, 2022

AMENAH F. PANGANDAMAN
 Secretary

In following - up, pls. cite barcode #SARO-3322-A010028



SARO No.: SARO-BMB-A-22-0008953
 Date of Issue: September 30, 2022

Page 1 of 1 page(s)

060010100000 Department of Budget and Management (DBM)

060010100000 Department of Budget and Management (DBM)

Special Allotment Release Order

A specific authority issued to identified agencies to incur obligations not exceeding a given amount during a specified period for the purpose indicated.

Home Admin Downloads Audits mjanerol@dbm.gov.ph

Downloads - NCA - ANCAI List

(Download Facility)

Agency	Operating Unit	NCA Number	Date	Download
Office of the Secretary	Central Office	NCA-BMB-C-22-0009729	08-12-2022	Download
Office of the Secretary	Central Office	NCA-BMB-C-22-0008418	07-13-2022	Download
Office of the Secretary	Central Office	NCA-BMB-C-22-0007212	06-20-2022	Download
Office of the Secretary	Central Office	NCA-BMB-C-22-0005805	05-26-2022	Download
Office of the Secretary	Central Office	NCA-BMB-C-22-0005544	05-20-2022	Download
Office of the Secretary	Central Office	NCA-BMB-C-22-0002976	03-21-2022	Download
Office of the Secretary	Central Office	NCA-BMB-C-22-0002075	03-03-2022	Download
Office of the Secretary	Central Office	NCA-BMB-C-22-0000460	01-03-2022	Download

Notice of Cash Allocation

Cash authority issued by the DBM to central, regional and provincial offices and operating units through the authorized government servicing banks of the MDS, to cover the cash requirements of the agencies.

Benefits & Impact



Project Objectives:



Enhanced Document Security

To enhance the security and integrity of Special Allotment Release Order, Notice of Cash Allocation, General Appropriations Release Order, and other related documents.



Transparency

The project aims to enable transparent and efficient tracking of the lifecycle of SAROs, NCAs, GAROs, and other related documents.



Interoperability

The blockchain project will facilitate interoperability and collaboration among different government agencies and departments involved in the budget allocation and financial management process



Public Trust

Leveraging a public blockchain component, the project aims to enhance public accountability and trust in the DBM processes.

Features of the Project

1

Document Tokenization

2

Document Verification

3

Document Tracking and History
with QR Printing per Docs

4

Secured Document Storage

5

Workflow Management

6

Notification and Alerts

7

Public Transparency Portal

8

User Access Permission

9

Public & Private Blockchain Mode

FUTURE DEVELOPMENTS

1

**SARO Documents
dated**

Jan 2023 - August 2023

2

SARO Documents

September 2023 - Future Releases

3

**NCA Documents
Dated**

Jan 2023 - Dec 2023

4

NCA Documents

Dec 2023 - Future Releases

IMF regional workshop on Digital Solutions for Public Financial Management in Vietnam comprises **68% percent of women representation** in the areas of technology and public finance! We commemorate International Women's Day with them contributing to spaces where women can lead in digitalization and public finance. Our workshop is supported by the Bill & Melinda Gates Foundation and SECO Economic Cooperation and Development



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Digital Transformation Roadmap for Public Finance Management

MARIA FRANCESCA M. DEL ROSARIO
Chief Information Officer



BAGONG PILIPINAS

3rd PAGBA Quarterly Seminar and Meeting
Cebu city, Waterfront Hotel
15 November 2023