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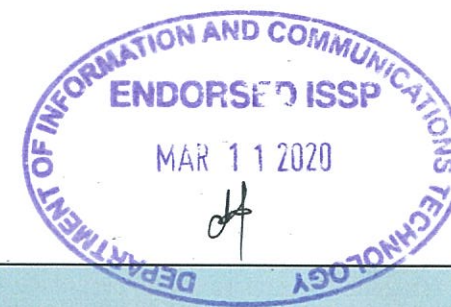
A.1 INTERNAL ICT PROJECTS

A.1.1 NAME/TITLE	Improvement of the DBM ICT Infrastructure
OBJECTIVES	**(1) Procurement of SSL Orchestrator** - To provide SSL decryption and encryption; - To provide service insertion, service resiliency, service monitoring, and load balancing; - To support geolocation, IP reputation, URL categorization, and 3rd party ICAP integration; - Applicable for header changes, support for port translation, and control over ciphers and protocols; - Single-box and Dual-box modes for standalone, cluster, and separate ingress/egress tiers; - To intercept and inspect traffic without requiring any special client configuration; and - To Collect and send logs and statistics. Source: _https://www.f5.com/products/security/ssl-orchestrator_ **(2) Procurement of Application Performance Monitoring** To measure the response time and behavior of every DBM application systems in particular: - If the application systems are running as it should; - If the connection of the Database and Application is running as it should; - If there are weaknesses that should be addressed; and

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	- If there are bugs/errors in the application code or any other problems affecting the performance of an application or bypassing the supposed security of the application.
	(3) Managed Service for DBM Systems - To provide a colocation site for all of the DBM application systems.
	(4) Replacement of Network Tools (Refresh CISCO) - To replace the routers and switches that have reached their end of life cycle.
	(5) Additional Network Components for DBM ICT Infrastructure - To improve and add network components for the DBM ICT Infrastructure enhancing its capabilities.
DURATION	2020 - 2022
DELIVERABLES	(1) To connect the DBM ICT Infrastructure to the SSL Orchestrator to minimize traffic during usage. (2) Assessed all of the DBM Application systems using the tools under Application Performance Monitoring. (3) Ensure that the expanded ICT infrastructure is operational after creating a copy of all of the DBM application systems to the colocation site. (4) The following are the routers and switches up for replacement: - CISCO 2901/K9 – 16 units – Router- - CISCO 3925/K9 – 2 units - Router - CISCO 2801 – 1 unit - Router

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	- CISCO 2811 – 1 unit – Router - WS-2960S-48FPS-L – 17 units – Access Switch - WS-C3750D-24P-S – 4 units – Access Switch - WS-C2960-48TC-L – 5 units – Access Switch (5) The following are the needed network components for the BTMS Infrastructure: - C9500-24YC (10G Transceiver) – 4 units - QSFP-40G-SR4 (40G Transceiver) – 40 units - GLC-TE (1G COPPER) – 12 units - C6800-8P40G (Module for Core Switch) – 2 units - MPO FIBER OM4 (Fiber Patch cord 3m) – 15 units - MPO FIBER OM4 (Fiber Patch cord 10m) – 10 units - LC-LC OM4 9Fiber Patch cord 5m) – 10 units - CM S8500 License – 393 Licenses - IP Phone – 150 units - PoE Power Adapter for IP Phone – 50 units
LEAD AGENCY	DBM
IMPLEMENTING AGENCIES	N/A

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A.1.2 NAME/TITLE	Procurement of Microsoft Software Licenses
OBJECTIVES	(1) **Microsoft Software Licenses** - To purchase additional licenses for the DBM.
DURATION	2020 - 2021
DELIVERABLES	(1) To be distributed to the old and new employees of DBM for improve office productivity.
LEAD AGENCY	DBM
IMPLEMENTING AGENCIES	N/A

B. CROSS-AGENCY ICT PROJECTS

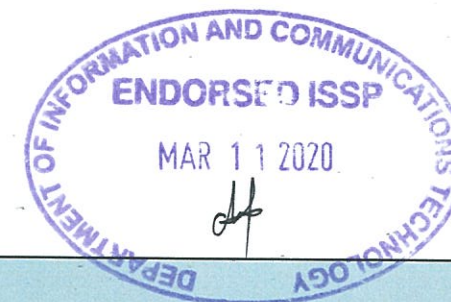| B.1 NAME/TITLE	Integrated Financial Management Information Systems (IFMIS) and the Budget and Treasury Management System (BTMS)
OBJECTIVES	The Budget and Treasury Management System (BTMS) is a common, modern, integrated, accurate, reliable and secure information system for the public financial management (PFM) operations of the Government of the Philippines (GOP). It provides a sustainable government resource planning solution that is extensible, flexible thereby supporting a range of public financial requirements, and adaptable to reform and modernization. **BTMS Oversight Functions:**

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	To allow DBM to monitor and manage the financial and physical performance of the National Government Agencies (NGAs), e.g., annual cash appropriation against disbursements, inflows and outflows of funds. **BTMS Spending Functions:** To automate and standardize processes, formats and financial reporting, e.g., commitments, purchase request, purchase order, goods received note, obligation and disbursements.
DURATION	November 2015 - December 2022
DELIVERABLES	The system is now being used to collect and organize government financial information through a central database that supports the following crucial PFM functions: 1. Budget Management; 2. Commitments Management; 3. Payments Management; 4. Receipts Management; 5. Cash Management; 6. Property, Plant and Equipment ; and, 7. Accounting and Fiscal Reporting.

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LEAD AGENCY	DBM, BTr, COA
IMPLEMENTING AGENCIES	BTMS will initially be implemented by the DBM and BTr as both oversight and spending agencies. COA will have special access to support in oversight and auditing functions. Other spending agencies will use the system for budget execution and accountability.

B.2	**NAME/TITLE**	**Improvement of the Project Digital Imaging for Monitoring and Evaluation**
	OBJECTIVES	(1) **Project Digital Imaging for Monitoring and Evaluation (DIME)** This project monitors the status and speed of implementation of government projects, especially those with high value to ensure that every peso allocated to government programs and projects will be used efficiently and effectively. This is attainable by utilizing Digital Data and Imaging Technology (DDIT) such as but not limited to the Open Roads System, Light Detection and Ranging Technology (LIDAR), and Geographic Information System (GIS), Satellites and drones will also be used in the program to cover areas which cannot be monitored through LIDAR. (2) **ArcGIS Software** - To acquire unique capabilities and flexible licensing for applying location-based analytics to your business practices. Gain greater insights using contextual tools to visualize and analyze your data. Collaborate and share via maps, apps, dashboards and reports. Source: https://www.esri.com/en-us/arcgis/about-arcgis/overview
	DURATION	2018 – onwards
	DELIVERABLES	(1) Finding reports from the monitoring period allowing the DBM to evaluate the status of the projects and to come up with a recommendation to continue or

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discontinue the funding of a project as well as other actions for the improvement of the project.

Project DIME will monitor 13 big-ticket projects/programs as follows:

Department of Public Works and Highway (DPWH)
  Construction/Improvement of Access Roads Leading to Seaports and Airport
Department of Transportation(DOTr)
  North-South Commuter Railway (Philippine National Railways-North)
Department of Health (DOH)
  Health Facilities Enhancement Program
Department of Social Welfare and Development (DSWD)
  Conditional Cash Transfer Program
Department of Education (DEPED)
  Basic Education Facilities
Commission on Higher Education (CHED)
  Universal Access to Quality Tertiary Education
Department of National Defense (DND)
  Armed Forces of the Philippines Modernization Program
Department of the Interior and Local Government (DILG)
  Local Governance Performance Management Program
National Irrigation Administration (NIA)
  Irrigation Systems
Department of Agriculture (DA)
  Agricultural Machinery, Equipment, Facilities, and Infrastructures Program
Department of Environment and Natural Resources (DENR)
  National Greening Program

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	Department of Information and Communications Technology (DICT) *Free Wi-Fi Internet Access* DA-Bureau of Fisheries and Aquatic Resources (DA-BFAR) *National Fisheries Program.* (2) To improve the monitoring and evaluation capabilities of DIME.
LEAD AGENCY	DBM, DOST
IMPLEMENTING AGENCIES	DBM, DOST-PCIEERRD
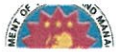
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C. PERFORMANCE MEASUREMENT FRAMEWORK

C.1 Integrated Financial Management Information System (IFMIS) and the Budget and Treasury Management System (BTMS)

Hierarchy of targeted results	Objectively Verifiable Indicators (OVI)	Baseline data	Targets	Data collection methods	Responsibility to collect data
Intermediate outcome: Improved Public Financial Management (PFM) performance assessment (i.e., Budget Reliability, Transparency of Public Finances, Management of Assets and Liabilities, Predictability and Control in Budget Execution and Accounting and Reporting)	Percentage of completion of the development of the BTMS	0%	100%	System Documentation	OCIO, ICTSS, BTMS-PMO
Immediate Outcome: Road Map for the Integrated Financial Management Information System (IFMIS)	Percentage of completion of the road map for the Integrated Financial Management Information System (IFMIS)	50%	100%	System Documentation	OCIO, BTMS PMO
Timely and reliable online reports and financial statements	Number of reports received within a set of timeline	0%	100%	System Documentation	OCIO, BTMS PMO, ICTSS
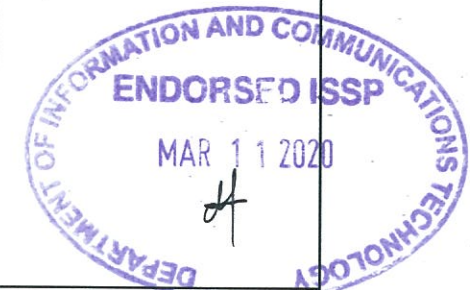
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Output: Capacity development training on PFM reforms	Percentage of rollout of the BTMS to concerned agencies	25%	100%	Reports	OCIO, BTMS PMO, ICTSS
	Percentage of training respondents from targeted delegated agencies	79%	100%	Assessment Report	
Issuance of a Circular Letter to prescribe guidelines in the adoption of the BTMS-BU	Signed and released Circular Letter	0%	100%	Documentation	OCIO, BTMS PMO, ICTSS
Roll out BTMS-BU to National Government Agencies (NGAs)	___% Rollout of BTMS-BU to NGAs	0%	100%	System Documentation	OCIO, BTMS PMO, ICTSS

C.2 Improvement of the Project Digital Imaging for Monitoring and Evaluation (DIME)

Hierarchy of targeted results	Objectively Verifiable Indicators (OVI)	Baseline data	Targets	Data collection methods	Responsibility to collect data
Intermediate Outcome: Maximize budget utilization to address underspending	Project DIME Reports as basis during Technical Budget Hearing for the BMBs	0%	100%	Monthly, Quarterly and Yearly DIME Report	OCIO
Improved visualization and analysis of project attributes with respect to political boundaries	Number of projects plotted in a certain amount of time	25% of projects in Google Earth	100% of projects in a compatible high-end	DIME Monitoring Tool	ICTSS

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			desktop and ArcGIS		
Immediate Outcome: Ability to continue and maintain the operation of the platform	Total time of server and application error	0%	100%	System Documentation	OCIO, ICTSS
Inform connectivity-infrastructure gap measures and associated investment prioritization, M&E, and feedback	Monthly consultation with the development partner	0%	100%	Data from BMB F and Data Validation from the team Upload	OCIO
Enhanced filtering, sorting, and plotting of the attributes of the projects	Amount of time to filter/sort attributes of the projects	15-20 minutes for filtering and sorting in Microsoft Excel and plotting in Google Earth	5-10 minutes for filtering sorting and plotting in a compatible High-end desktop and ArcGIS	DIME Monitoring Tool	ICTSS
Outputs: Technical support on the usage of platform	Conduction of Operational Training on the usage of the platform	0%	100%	System Documentation	OCIO, ICTSS
Training for key stakeholders on the usage of platform	Number of training sessions conducted	0%	100%	Attendance on the stakeholders meeting with key officials	OCIO
Provision of resources required to facilitate the operational activities	Venue, Refreshments and Training materials provided by DBM	0%	100%	Copies of attendance facilitated by DBM	OCIO
Faster and efficient plotting of projects in maps, charts, and	Amount of time to plot the dataset in maps, charts, and tables	4 hours for data	2 hours for data visualization	DIME Monitoring Tool	ICTSS

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tables based on the desired attribute to be visualized		visualization in Photoshop	in a compatible high-end desktop ArcGIS		

C.3 Improvement of the DBM ICT Infrastructure

Hierarchy of targeted results	Objectively Verifiable Indicators (OVI)	Baseline data	Targets	Data collection methods	Responsibility to collect data
Intermediate Outcome: Gain invisibility to encrypted traffic	% of visibility on encrypted traffic	0% visibility on encrypted traffic	100% visibility on encrypted traffic	Data encryption and reporting	ICTSS
Managed IT solution for overall needs	IT Infrastructure and applications	50% Existing infrastructure setup and running applications	100% Redundant infrastructure setup and running applications	Determining minimum specifications for the required setup	ICTSS
Ensuring business applications are performing as expected	Availability of infrastructures and applications	50% Infrastructures and applications are up and running	100% Infrastructures and applications are up and running with	Monitoring using dashboard	ICTSS

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			consideration on planned downtime during maintenance		
Cisco equipment deployed are up to date	All cisco devices are up to date	50% Latest cisco equipment are deployed	100% of all deployed cisco equipment are enrolled in repair and maintenance agreement	Monitoring of cisco devices	ICTSS
Stability of BTMS Infrastructure	Availability of BTMS applications	50% of all BTMS applications are up and running	100% of all BTMS applications are up and running with consideration on planned downtime during	Monitoring using tools	ICTSS

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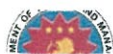|			maintenance		
Immediate Outcome: Maximize security investment	% of performance optimization with efficient management of inbound and outbound encrypted traffic	0% performance optimization with efficient management of inbound and outbound encrypted traffic	100% performance optimization with efficient management of inbound and outbound encrypted traffic	Security inspection of traffic	ICTSS
Dedicated 24/7 personnel providing IT infrastructures and applications services	Number of strategy team manning IT solutions	50% Existing personnel on the primary site	100% Dedicated personnel managing on the secondary site	Evaluation and assessment of qualifications	ICTSS
Monitoring metrics on a dashboard	Set success criteria for uptime	0% Threshold to represent normal operations	100% Maintain availability with considerations on planned and unplanned activities	Monitoring and evaluation	ICTSS

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Cisco device deployment for central and regional offices	Number of cisco devices installed and configured	50% of all DBM offices are installed with the same cisco device	100% of all DBM offices are using the same setup and configuration	Installation and configuration of cisco devices	ICTSS
Improvement of BTMS Infrastructure	Number of installed BTMS infrastructure components	50% of BTMS infrastructure with required components for normal operations	100% of BTMS infrastructure with required components for flexible functional requirements	Redesigning of BTMS Infrastructure	ICTSS
Output: Improve risk management and privacy	Number of implemented policies to effectively balance security and privacy	Implemented policies based on best practices	Implemented policies based on real-time traffic	Configuration of decryption policies	ICTSS
Enhanced business efficiency and productivity	High availability of IT infrastructures and applications	0% Active production setup located on the primary site	100% Standby production setup located on the	Evaluation and assessment of site facilities	ICTSS

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			secondary site		
Ensure that the supply of services to end users is uninterrupted and the quality delivered is supreme	Availability of entire resources	0% Backend, network and client side are always available	100% Cause of Issues and problems are easily identified	Inspection of monitored issues and problems	ICTSS
Scalable and reliable cisco devices	DBM network are scalable	50% converged DBM network	100% of all DBM network is flexible to network modification and improvement	Maintenance of cisco devices	ICTSS
Secure and reliable BTMS Infrastructure	DBM network are secured and reliable	0% Responsive BTMS applications	100% of BTMS applications without bugs and errors	Monitoring and maintenance of BTMS Infrastructure	ICTSS

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C.4 Procurement of Microsoft Software Licenses

Hierarchy of targeted results	Objectively verifiable indicators	Baseline data	Targets	Data collection methods	Responsibility to collect data
Intermediate Outcome: Necessary updates and patches are installed	All devices with installed licenses are up to date	50% Devices are running normally	100% Devices are secured from threats and errors	Regular updates are scheduled	ICTSS
Immediate Outcome: Updated licenses are installed	Number of devices with installed licenses	50% Existing devices are running with corresponding licenses	100% Licenses are managed on existing and future devices	Monitoring of licenses usage	ICTSS
Output: Installed licenses with software assurance	Devices are installed with the required licenses	50% Devices are running the required version of license	100% Devices with end-of-life Microsoft software are upgraded with the recommended version	Management and monitoring of installed software	ICTSS