



NORTHERN BUKIDNON STATE COLLEGE

(by virtue of RA 11284)
Kihare, Manolo Fortich, Bukidnon

Website: <http://www.nbsc.ph>

INFORMATION SYSTEMS STRATEGIC PLAN (ISSP) for the period January 02, 2021 to December 2023

Northern Bukidnon State College



Prepared by: Management Information System Office

Signature: _____

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Scope:

- Department-Wide
- Department - Central Office/Head Office

- Central Office only
- With Regional Offices/Field Offices
- With Bureaus

Agency-Wide

- Central Office only
- With Regional Offices/Field Offices

APPROVED BY:

Catherine Roween C. Almaden, PhD

College President

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PART I. ORGANIZATIONAL PROFILE

A. DEPARTMENT/AGENCY VISION/MISSION STATEMENT

A.1. Mandate

- Republic Act 11284 -An Act Converting the Northern Bukidnon Community College in the Municipality of Manolo Fortich, Province of Bukidnon, into a State College to be Known as the Northern Bukidnon State College, and Appropriating Funds Therefor
- **Functions:**
The College shall primarily provide advance studies and research, higher professional and technical instructions and training in science and technology, and other related fields. It shall also undertake research and extension services, and provide progressive leadership in its areas of specialization in the Province of Bukidnon and in Region X.

A.2. Vision Statement

A premier Local State College in the Northern part of Bukidnon whose graduates are equipped with 21st century skills for global competitiveness.

A.3. Mission Statement

Promote and sustain the offering of relevant academic programs and ensure equitable access to quality education for people empowerment, professional development and improved quality of life.

A.4. Major Final Outputs

MFO 1 – Higher Education Program – Provision of Higher Education Services.

Outcome: Relevant and quality tertiary education ensured to achieve inclusive growth an access of poor but deserving students to quality tertiary education increased.

Indicators:

- a. Percentage of first-time licensure examination takers pass the licensure examination
- b. Percentage of graduates are employed





MFO 2 – Advanced Education Program – Provision of Advanced Education Service.

Outcome: Higher Education research improved to promote economic productivity and innovation.

Indicators:

Percentage of faculty engaged in research work applied in any of the following:

- a. Pursuing advanced research degree program (MS/PhD)
- b. Actively pursuing within the last three years (Investigative research, basic and applied scientific research, policy research, social science research)
- c. Producing technologies for commercialization or livelihood improvement
- d. Whose research work resulted in an extension program

MFO 3 – Research Program – Conduct of Research Services.

Indicators:

Number of research outputs in the last three years utilized by the industry or by the beneficiaries

MFO 4 – Technical Advisory Extension Programs – Provision of Extension Services.

Outcome: Community Engagement increased

Indicators:

Number of active participants with LGUs, industries, NGOs, NGAs, SMEs, and other stakeholders as a result of extension activities.

General Administrative and Support Services – General management and supervision.

Support to Operations Services – Auxiliary services





B. DEPARTMENT/AGENCY PROFILE

B.1 Name of Designated IS Planner - **BENZAR GLEN S. GREPON, MIT**
 Position - MIS Director
 Email Address - ben.it2c@gmail.com / bgsGREPON@nbsc.ph
 Contact Number: - +639064324127



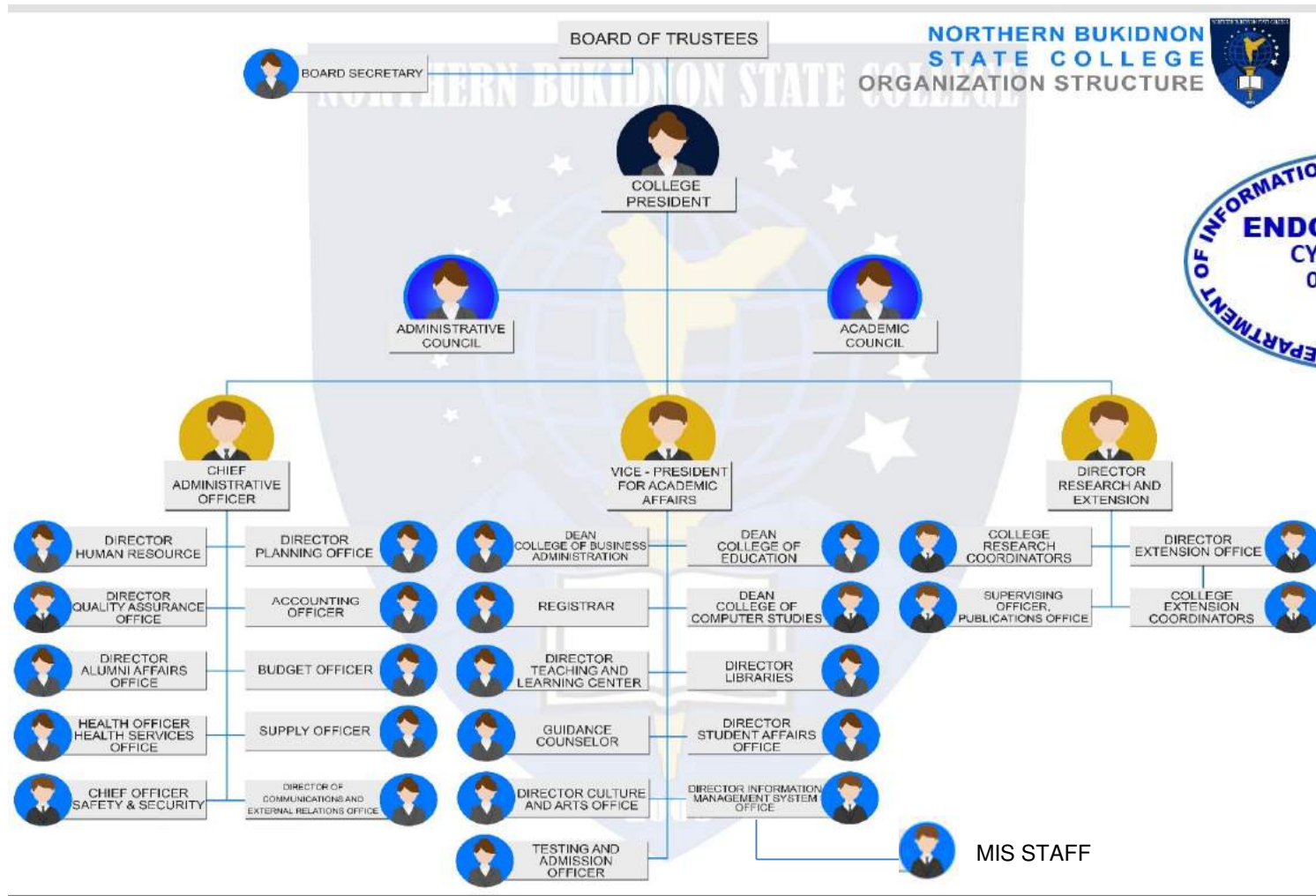
B.2 Current Annual ICT Budget (FY 2021) - **PHP1,000,000.00**

	FY 2021
A. Maintenance and Other Operating Expenses (MOOE)	0.00
B. Capital Outlay	1,000,000.00
TOTAL	1,000,000.00

B.3 Organizational Structure

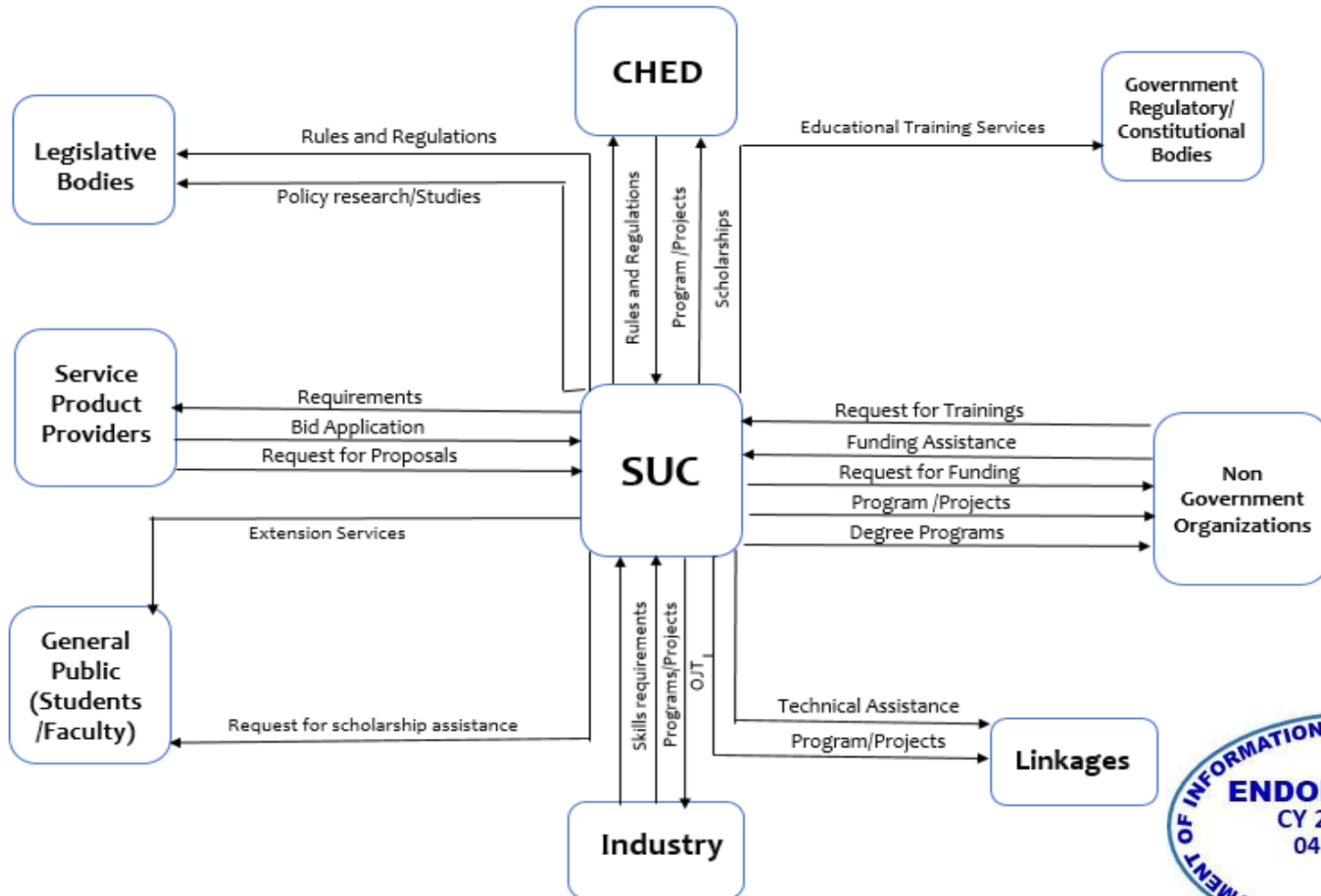
Total Number of Employees as of April, 2021 - **60**
Total of Campuses: N/A

Employment Status	Number of Employees
A. Permanent	28
B. Casual	3
C. Contract of Services	
a. Staff	4
b. Instructors	18
c. Utility Workers	4
d. Watchman	2
e. Agency Security Guard	1
TOTAL	60





C. THE DEPARTMENT/AGENCY AND ITS ENVIRONMENT (FUNCTIONAL INTERFACE CHART)





D. PRESENT ICT SITUATION (STRATEGIC CHALLENGES)

The college was Converted into a State College last October 2020 with that, there is only a limited use of ICT Infrastructure in the College. The college uses a PC that has high specification that acts a server that caters the Basic Network Sharing and Database Hosting for our system to work. In terms of Network Infrastructure, we use a Basic Star topology network setup for us to connect 2 buildings which are near to the Server. Since 2018 we developed a System Called Northern Bukidnon Community College-School Management System (NBCC-SMS) which acts as a school system that stores and update student information, enroll students, and generate necessary reports that benefits the school. Learning Management System (LMS) has not yet fully functional since we are still developing the functional requirements that fits the operation and the teaching and learning system of the college since we are adopting the Flexible Learning which is our new Normal way of delivering classes to our students. Based on GAA 2021 we were given P1,000,000.00 worth of ICT budget that is under our Capital Outlay and we are supposed to prioritize on building our Server Rooms and Data Centers, but because of the limited budget it is prioritized to subscribe to a proprietary LMS that supports our Flexible Learning and Basic Network Hardware for us to initially build our server and data center ready for more budget for GAA 2022.

The following are the major concerns of the college in relation to ICT Implementation. The Absence of a server room and Data center that acts the control and management of School and Student Information. Absence of a reliable and dedicated ISP that provides stable connectivity to the world wide web. Absence of a Learning Management System for Student Learning. Limited functionality of the current school system that cannot support the entire Student Life Cycle System of a student from enrollment to employment. PC acts a server to host our system and its database. Basic Cabling just to connect buildings to access the system. Basic Network Devices which cannot be configured for Quality of Service and cannot be easily managed. Limited number of PC that can be used by the students and instructors and website is still on a (.ph) domain not yet registered to (.edu.ph).

Before the outbreak of the novel coronavirus pandemic, the Philippine Higher Education system was already dealing with the challenges confronting developing countries in the adoption of digital transformation agendas to meet the digital-driven Industrial Revolution 4.0 (also known as Fourth Industrial Revolution). Klaus Schwab in the 2016 World Economic Forum declared the arrival of the Fourth Industrial Revolution, with intrinsic implication on transformation of knowledge management with strong emphasis on the integration of information and communication technology (ICT) in the college and professional education system.

In the aftermath of the World Health Organization's designation of the novel coronavirus as a pandemic on March 11, 2020, colleges and universities across the Philippines have cancelled all in-person classes. This shift has created a reorganization of the delivery of instruction into alternative learning approaches with modes dominantly relying on an online learning system.





The integration of ICT for the delivery of online student services from admission to the completion of their degrees and for the implementation of flexible learning will not only be a one-time precautionary measure against the COVID-19 but it could potentially prepare NBSC and its students to navigate to the disruptive technologies brought about by the Fourth Industrial Revolution.

The obvious challenge ahead is designing new approaches to learners' information system and flexible learning system amidst limitations in ICT equipment and infrastructure.

Impact

Developing a Learner's Information System and Flexible learning system requires ICT resources and infrastructures for both implementation and user support. "ICT infrastructure" refers not only to physical elements of technology, such as computers and software, but also to the systems, processes, and people that support the full functioning and productive use of those elements. Technology-related activities occur concurrently with other implementation activities, and it requires dedicated ICT staff or ICT technical advisory group and other cross-cutting startup and implementation activities.

Without adequate ICT devices, internet/mobile network access, educational resources and faculty's training, students simply cannot partake in distance education to continue on their learning trajectories. At most risk of being left behind are students from resource-poor areas, remote rural areas and low-income households.

NBSC's commitment to the development of innovative and flexible approaches to teaching and learning is entrenched in the availability of reliable ICT resources and infrastructures for delivery of teaching and learning strategies dedicated to providing student-centered learning environment.

Online and flexible learning management systems provide an excellent method of students' services and course delivery unbound by time or location allowing for accessibility to instruction at anytime from anywhere. Learners find the online environment a convenient way to fit education outside of the traditional classroom. The ability to access a course from any computer with internet access, 24 hours a day, seven days a week is a tremendous incentive for many students and teachers. It allows seamless communication and interaction between teachers and students in virtual spaces.

With the realization of the project, faculty, staff and students will have more choice and control over the structure, sequence, method and timing in their academic functions and learning activities by

- Securing and maintaining reliable records management system
- Continuing delivery of academic activities seamlessly Providing an enhanced student-centered approach to learning;





- Encouraging independent learning by giving greater control to learners in order that they are innovative, creative and capable of problem solving;
- Opening up learning opportunities for a wider range of prospective learners;
- Reducing barriers to accessing learning;

Providing a better mix of learning situations, broadening learners' scope and range of experience; and Applying the most appropriate and effective learning and teaching methods, technological Developing a Learner's Information System and Flexible learning system requires ICT resources and infrastructures for both implementation and user support. "ICT infrastructure" refers not only to physical elements of technology, such as computers and software, but also to the systems, processes, and people that support the full functioning and productive use of those elements. Technology-related activities occur concurrently with other implementation activities, and it requires dedicated ICT staff or ICT technical advisory group and other cross-cutting startup and implementation activities.

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Sustainability

To ensure sustainability of the completion of the project for learners' information management and learning management systems, a holistic approach involving a balanced support for hardware, connectivity, contents, and people are highly essential. More specifically, activities the following areas are important:





Systematic monitoring and evaluation of ICT s. The use of ICT should be evaluated to determine whether methods and tools are having the expected impact. This also allows for critical adjustments and upgrading of ICT infrastructure, hardware, and digital resources for education.

Technical support for Faculty. Faculty members sometimes stop using ICT due to lack of technical support. ICT support staff at schools is crucial to not only install but maintain both hardware and software. They can provide an enabling environment for faculty to focus on teaching by minimizing their technical tasks. This may be done in partnership with ICT industry sector, technical and vocational institutions.

Differentiated and continuous programs for professional development. Faculty and staff training for ICT in education must be done periodically. Professional development programs should be based on the learning needs of each faculty and staff identified through a sound assessment process. Periodic professional development can allow faculty and staff to receive training when needed. It provides a more meaningful experience for faculty and staff as they learn by doing when using ICT.

Pedagogical support for Faculty. ICT infrastructure with the most up-to-date specifications as well as with the fundamental educational functions should be considered from a sustainable perspective. If state-of-the-art technologies are to be integrated, teacher training should also be taken into account in alignment with pedagogical methods. Faculty are overloaded with multiple tasks and often see ICT in education as extra work rather than a new opportunity. To remedy this, short-term strategies are needed to develop their capacity for implementing ICT-enabled lessons. Personalized support from an off-site helpdesk should also be provided.

Intelligent tutoring systems (ITS). ITS can provide faculty and students with explanations, learning paths, and resource materials to help them reach goals at their own pace. They can also provide faculty with pedagogical and content support when professional development opportunities are lacking. It monitors student progress, identifies strengths and limitations and assigns different tasks to different students based on this diagnosis.

Collaboration. There are multiple stakeholders involved for ICT implementation in higher education. Effective use of ICT in higher education requires strong collaboration with other HEIs and government agencies. Developing a master plan for ICT development in NBSC can provide a framework for better collaboration. All stakeholders (planning, finance, faculty development and curriculum development and other NBSC partners) need to work together in the crafting of the master plan and its implementation.

Excellence

The very first stage of ICT implementation must be effective to make sure that, faculty and students are able to make the best use of it. Thus, preparations of a technology-based teaching and learning begin with proper implementation and supports by the NBSC's top management. The implementation process of technology integration in campus must take place appropriately from the very beginning stage and continuous





maintenance must be adequately provided, for ICT integration in campus to result in a huge success and derive benefits for both faculty and students. The use of ICT especially in teaching and learning is more about practicality and that is why faculty members must be given time to learn and explore it, face the “trial-and-error” phase before they are completely comfortable with its usage and able to make use of it for teaching and learning.

The ICT should be developed appropriately to the extent of matching the capability of students as well as faculty members in an educational experience relative to the development of new information technology in the college. To be effectively and efficiently managed, the benefits of ICT integration should interrelate in various ways in relation to specific college goals: for example, an ICT initiative in teaching might not just incur educational benefits for students but should also improve information flow within the organization or improve the standing of the institution.

Equity

The ICT infrastructure and resources must be made available and accessible to all faculty and students. This will be attained by identifying the core courses in which ICT skills development and training will be integrated. The main goal of ICT implementation and course integration must adhere to the following:

- 1) To surround the campus with dynamic and innovative learning environments for all faculty and students to become more motivated and creative;
- 2) To enable faculty and students to gain wider range of knowledge and be able to access to internet for developing a global outlook;
- 3) To nurture faculty and students with different capabilities of processing information more effectively and efficiently; and
- 4) To develop faculty and students with attitudes and capability of life-long learning.





E. STRATEGIC CONCERNS FOR ICT USE

MAJOR FINAL OUTPUT	CRITICAL MANAGEMENT/OPERATING/BUSINESS SYSTEMS	PROBLEMS	INTENDED USE OF ICT
ORGANIZATIONAL OUTCOMES MFO1: Higher Education Program	1.1 Testing and Admission	1.1.1 Difficulty in scheduling of examination	1.1. Online Entrance Exam Appointment System with Email Integration for Notification
	1.2 Registration and Enrollment	1.2.1 Difficulty in integrating data gathered using google forms to the admission portal.	1.2. Web-based Admission Portal
	1.3 Subject Control and Scheduling and Faculty Loading	1.3.1 Difficulty on consolidating schedules per colleges and identifying conflict of day, time, room, and faculty handling because of the increase of student population the moment our school has granted free tuition and SUC recognition. 1.3.2 Difficulty on faculty teaching load balancing	1.3. NBCC-SMS Scheduling and Subject Control Module
	1.4 Faculty Grade Submission	1.4.1 Difficulty on submitting grades since the faculty will input there grades manually and it should be within the school premises because Only PC who is connected to the server has the capability to upload through faculty portal. 1.4.2 The current process of grade submission is time consuming	1.4. Web based faculty Portal with excel file integration
	1.5 Grade Verification	1.5.1 Students does not have any access to their grades. Only the registrar has to print and send grades via email. Very time consuming	1.5. Student Information System





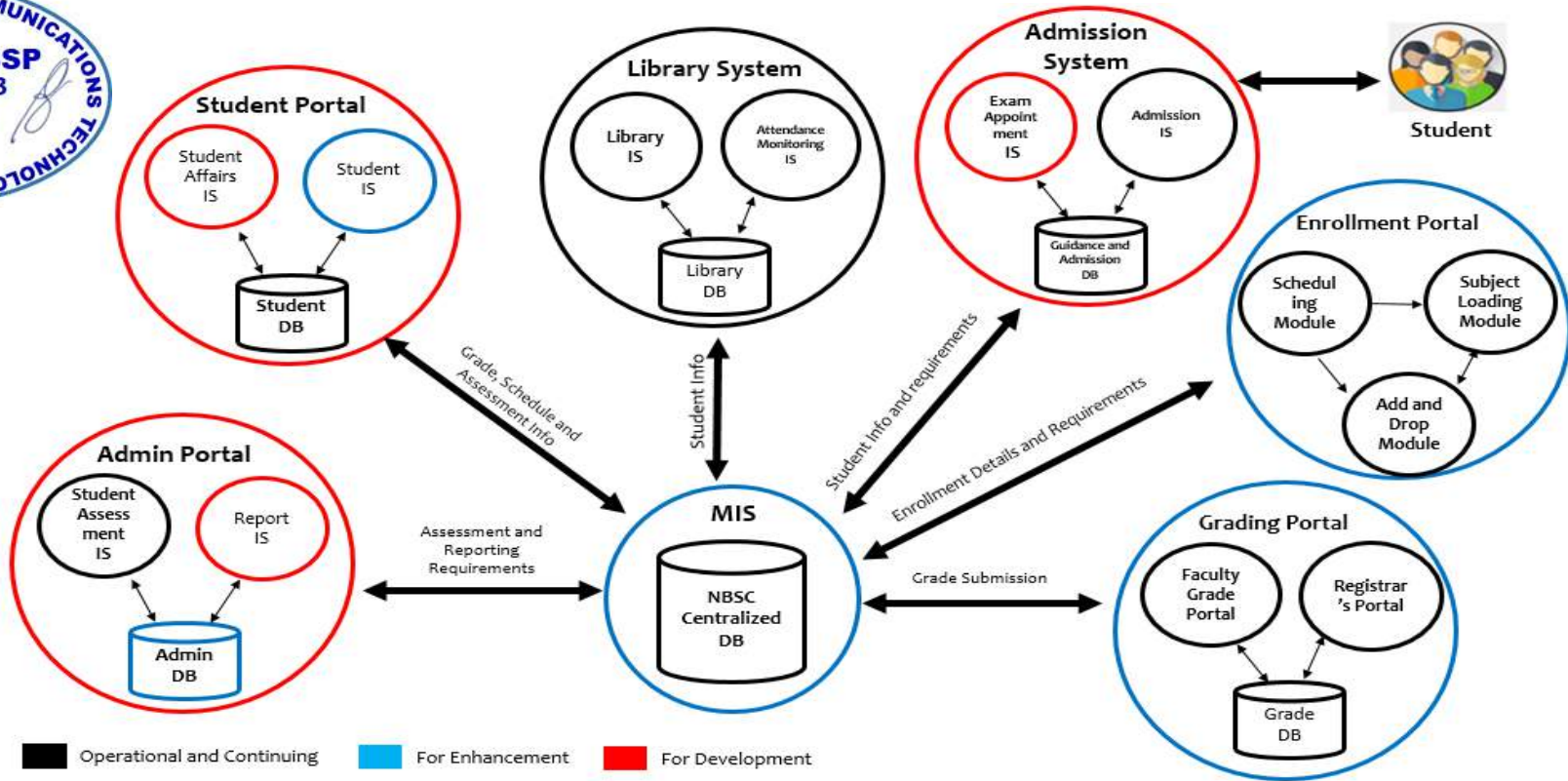
MAJOR FINAL OUTPUT	CRITICAL MANAGEMENT/OPERATING/BUSINESS SYSTEMS	PROBLEMS	INTENDED USE OF ICT
	1.6 Course Content Management	1.6.1 No existing system for digital contents creation and delivery of student's courses	1.6. Learning Management System 1.7. NBSC Website
MFO2: Advanced Education Program	2.1 Faculty Development	2.1.1 No mechanism on which the faculty could apply for faculty development program of the school for Advancement of their education	2.1 Human Recourse Information System
MFO3: Research Program	3.1 Statistical Analysis	3.1.1 No License program used to Analyze research data. 3.1.2 Gather of data in the field requires software that has functionality that gathers data offline then able to consolidate it when there are signals both mobile and Wi-Fi.	3.1 SPSS Software 3.2 Mobile based Data Collection Tool
	3.2 Research Output Storage	3.1.1 No mechanism on which research data and outputs are kept in an digital repository for safekeeping for easy access and retrieval	3.2.1 Research Output Information System
MFO4: Extension Program	4.1 Visual Presentation of Research Outputs	4.1.1 Difficulty on generating reports that requires Map integration for visual presentation when research data are consolidated	4.1 Geographic Information System (GIS) Software
General Administrative and Support Services	5.1 Inventory of Properties	5.1.1 Difficulty to generate reports of the current and consolidated status of all properties and equipment of the college. Very time consuming	5.1 School Property Information and Inventory System





PART II. INFORMATION SYSTEM STRATEGY

A. CONCEPTUAL FRAMEWORK FOR INFORMATION SYSTEMS (DIAGRAM OF IS INTERFACE)





B. DETAILED DESCRIPTION OF PROPOSED INFORMATION SYSTEM

NAME OF INFORMATION SYSTEM/SUBSYSTEM		B.1 Student Affairs Information System
DESCRIPTION		The Student Affairs Information System is a web based system which is not yet available in the world wide web, this operates within the Local Area Network of the college. This System includes the functional modules which are: Student Organization Fees Collection System, Collection Reports, Monitoring System for students collection and Generation of Reports. Hosting it in the world wide web through the school website is very beneficial because it will be available outside the school when connected to the internet, but with the limited budget and resources it is still on the development phase.
STATUS		For Development (Student Organization Fees Collection System, Collection Reports, Monitoring System for students collection and Generation of Reports)
DEVELOPMENT STRATEGY		Inhouse
USERS	INTERNAL	NBSC Constituents
	EXTERNAL	CHED, DBM, COA
SYSTEM OWNER		Registrar and Student Affairs Office





NAME OF INFORMATION SYSTEM/SUBSYSTEM		B.2 Student Information System
DESCRIPTION		<p>The Student Information System is a web based system which is not yet available in the world wide web, this operates within the Local Area Network of the college. This System includes the functional modules which are: Schedule Viewing; Grade Viewing; and Assessment and Payment Viewing Modules. These Modules were developed using PHP using Bootstrap and its template for Dash boarding.</p> <p>Hosting it in the world wide web through the school website is very beneficial because it will be available outside the school when connected to the internet, but with the limited budget and resources it is still on the development phase.</p> <p>The SIS will benefit both the students and the parents since this will be the portal on which they can be updated with the student information especially on Financial, Scholastic Activity and Grades.</p>
STATUS		For Enhancement (Schedule Viewing; Grade Viewing; and Assessment and Payment Viewing Modules)
DEVELOPMENT STRATEGY		Inhouse
USERS	INTERNAL	NBSC Constituents
	EXTERNAL	CHED, DBM, COA
SYSTEM OWNER		Registrar and Student Affairs Office





NAME OF INFORMATION SYSTEM/SUBSYSTEM		B.3 Library Information System
DESCRIPTION		The Library Information System is a web based system and is available only in the College Library, this operates within the Local Area Network of the college. This System includes the functional modules which are: Book Information Module and Student Attendance Monitoring Module. The Library System has benefited both the students and the Library Staffs to update its library information of its resources through inventory and Information system and also tracking and monitoring of students attendance basis for CHED reports and support for school's decision making.
STATUS		Currently Operational and Continuing
DEVELOPMENT STRATEGY		Inhouse
USERS	INTERNAL	NBSC Students, Faculty and Staff
	EXTERNAL	CHED, DBM, COA
SYSTEM OWNER		Library

NAME OF INFORMATION SYSTEM/SUBSYSTEM		B.4 Attendance Monitoring Information System
DESCRIPTION		The Attendance Monitoring Information System is java-based system and is available only in the College Library, this operates within the Local Area Network of the college. This System includes the functional modules which are: Student Attendance Monitoring and E-Library Reservation System and Monitoring. The Attendance System has benefited both the students and the Library Staffs in tracking and monitoring of students attendance which is used as basis for CHED reports and support for school's decision making.
STATUS		Currently Operational and Continuing
DEVELOPMENT STRATEGY		Inhouse
USERS	INTERNAL	NBSC Students, Faculty and Staff
	EXTERNAL	CHED, DBM, COA
SYSTEM OWNER		Library





NAME OF INFORMATION SYSTEM/SUBSYSTEM		B.5 Admission Information System
DESCRIPTION		The Admission Information System is web-based. This System includes the functional modules which are: Online Appointment System for those students who wish to take the entrance examination and Admission Module which allows students to partially enroll by filling up and updating of their Student Information that is stored in the school’s database. The Admission System has benefited both the students and the admission Staffs for fast and reliable admission of student records in the centralized database.
STATUS		Operational and Continuing
DEVELOPMENT STRATEGY		Inhouse
USERS	INTERNAL	Academic Sector
	EXTERNAL	General Public
SYSTEM OWNER		Admission and Guidance Office

NAME OF INFORMATION SYSTEM/SUBSYSTEM		B.6 Exam Appointment Information System
DESCRIPTION		The Exam Appointment Information System is a web-based computer based system. This System includes the functional modules which are: Online Exam Appointment and Scheduling System for the Admission Officer. In the future this system will be hosted in the world wide web through the school website for a real time and even more fast and accessible portal wherein incoming student don’t need to go to school just to set appointment to take the entrance exam.
STATUS		For Development (Email Integration and Auto Scheduling Mechanisms)
DEVELOPMENT STRATEGY		Inhouse
USERS	INTERNAL	NBSC Constituents
	EXTERNAL	Students and other stake holders
SYSTEM OWNER		Admission and Guidance Office





NAME OF INFORMATION SYSTEM/SUBSYSTEM		B.7 Scheduling Module
DESCRIPTION		The Scheduling Portal is a java-based computer based system. This System includes the functional modules which are: Scheduling Module. It was developed in an Intranet java-based Environment for Real Time and Transactional Processes. Currently this has been used since 2017 and to the present, a continuous improvement has been adapted to ensure its recentness and it should really response to the current needs of the college.
STATUS		Operational and Continuing
DEVELOPMENT STRATEGY		Inhouse
USERS	INTERNAL	NBSC Constituents
	EXTERNAL	Students and other stake holders
SYSTEM OWNER		Administration and Different Programs of the College

NAME OF INFORMATION SYSTEM/SUBSYSTEM		B.8 Subject Loading Module
DESCRIPTION		The Enrollment Portal is a java-based computer based system. This System includes the functional modules which are the Subject Loading and Faculty Loading. It was developed in an Intranet java-based Environment for Real Time and Transactional Processes. Currently this has been used since 2017 and to the present, a continuous improvement has been adapted to ensure its recentness and it should really response to the current needs of the college.
STATUS		Operational and Continuing
DEVELOPMENT STRATEGY		Inhouse
USERS	INTERNAL	NBSC Constituents
	EXTERNAL	Students and other stake holders
SYSTEM OWNER		Administration and Different Programs of the College





NAME OF INFORMATION SYSTEM/SUBSYSTEM		B.9 Add and Drop Module
DESCRIPTION		The Enrollment Portal is a java-based computer based system. This System includes the functional modules which are the Adding and Dropping Module. It was developed in an Intranet java-based Environment for Real Time and Transactional Processes. Currently this has been used since 2017 and to the present, a continuous improvement has been adapted to ensure its recentness and it should really response to the current needs of the college.
STATUS		Operational and Continuing
DEVELOPMENT STRATEGY		Inhouse
USERS	INTERNAL	NBSC Constituents
	EXTERNAL	Students and other stake holders
SYSTEM OWNER		Administration and Different Programs of the College

NAME OF INFORMATION SYSTEM/SUBSYSTEM		B.10 Student Assessment Information System
DESCRIPTION		The Student Assessment Information System is a java-based computer based system and is responsible in the generation of necessary information's that the school needs for internal and external presentations and documentation. This System includes the functional modules which are: The student Assessment and other Financial Transactions. It was developed in an Intranet java-based Environment for Real Time and Transactional Processes. Currently this has been used since 2017 and to the present, a continuous improvement has been adapted to ensure its recentness and it should really response to the current needs of the college.
STATUS		Operational and Conitnuing
DEVELOPMENT STRATEGY		Inhouse
USERS	INTERNAL	NBSC Administrative Staffs
	EXTERNAL	CHED, DBM, COA and the General Public
SYSTEM OWNER		Assessment Office and Finance Office





NAME OF INFORMATION SYSTEM/SUBSYSTEM		B.11 Report Information System
DESCRIPTION		The Report Information System is a java-based computer based system and is responsible in the generation of necessary information's that the school needs for internal and external presentations and documentation. This System includes the functional modules which are: Printing of Student Permit, Generation of Student List, CHED Reports and Requirements and other documents which can be produced through the consolidated data of the college. It was developed in an Intranet java-based Environment for Real Time and Transactional Processes.
STATUS		For Development with its moduels such as: Printing of Permits, Grades, and Classlist.
DEVELOPMENT STRATEGY		Inhouse
USERS	INTERNAL	NBSC Administrative Staffs
	EXTERNAL	CHED, DBM, COA and the General Public
SYSTEM OWNER		Office of the College President and the Quality Assurance Office

NAME OF INFORMATION SYSTEM/SUBSYSTEM		B.12 Faculty Grade Portal
DESCRIPTION		The Faculty Grade Portal is a web based system. This System includes the functional modules which are: Faculty Grade Module and Grade Printing Module. The Faculty Grade Module has been used by the Faculty to input their grades to the school database.
STATUS		Currently Operational and Continuing.
DEVELOPMENT STRATEGY		Inhouse
USERS	INTERNAL	Faculty and Registrar Staff
	EXTERNAL	CHED and Students
SYSTEM OWNER		Registrar's Office





NAME OF INFORMATION SYSTEM/SUBSYSTEM		B.13 Registrar’s Portal
DESCRIPTION		The Registrar’s Portal is a web based system. The Registrar’s Portal has been used by the Registrar to change the grades of the students upon approval of the change of grades request by the faculty thus the registrar’s Portal has been exclusively used by the Registrar’s Office for their day to day use in Generating Internal Evaluation of Grades, Grade Slip Printing, Printing of Official TOR and Other Promotional reports which are CHED Requirements.
STATUS		Currently Operational and Continuing
DEVELOPMENT STRATEGY		Inhouse
USERS	INTERNAL	Faculty and Registrar Staff
	EXTERNAL	CHED and Students
SYSTEM OWNER		Registrar’s Office





C. DATABASES REQUIRED

NAME OF DATABASE		C.1 NBSC_NBSCSMS (Using MySQL 5.6.12)
GENERAL CONTENTS / DESCRIPTION		The NBSC_NBSCSMS has been used as the Main repository of all Student and School Information Data and Information. This is used an open source DBMS continuously for Enhancement and Development on the growing needs of the school in terms of IS Design and Implementation.
STATUS		Build Up and For Enhancement
INFORMATION SYSTEM SERVED		Student Portal, Library System, Admission System, Enrollment Portal, Admin Portal and the Grading Portal
DATA ARCHIVING /STORAGE MEDIA		Local Storage through a Tower PC Server Located in the Admin Office
USERS	INTERNAL	MIS, ADMIN, PROGRAM HEAD, ADMISSION, FINANCE AND REGISTRAR
	EXTERNAL	CHED, DBM, COA and General Public
OWNER		Registrar's Office





NAME OF DATABASE		C.2 NBSCSMS_STUDENT-DB (Using MySQL 5.6.12)
GENERAL CONTENTS / DESCRIPTION		The NBSC_NBSCSMS_STUDENT-DB has been used to store Student Information, this repository has been used to generate Insurance report and other information related to student affairs.
STATUS		Continuous Buildup
INFORMATION SYSTEM SERVED		Student Portal
DATA ARCHIVING /STORAGE MEDIA		Local Storage Located in the Student Affairs and Services Office
USERS	INTERNAL	SAS Office, Student Organization and the Faculty and Staff
	EXTERNAL	General Public
OWNER		Student Affairs Office

NAME OF DATABASE		C.3 NBSCSMS_LIBRARY-DB (Using MySQL 5.6.12)
GENERAL CONTENTS / DESCRIPTION		The NBSC_NBSCSMS_LIBRARY-DB has been used to store Book Information and is used by the Library to monitory Book Inventory of the College. The LIBRARY-DB Also stores e-book information which allows students to be updated on the current Library holdings specifically on its e-book collection.
STATUS		Continuous Buildup
INFORMATION SYSTEM SERVED		Library System
DATA ARCHIVING /STORAGE MEDIA		Local Storage Located in the College Library
USERS	INTERNAL	Library Staff, Students, NBSC Constituents
	EXTERNAL	General Public
OWNER		College Library Office





NAME OF DATABASE		C.4 NBSCSMS_ ADMISSION-DB (Using MySQL 5.6.12)
GENERAL CONTENTS / DESCRIPTION		The NBSCSMS_ ADMISSION-DB has been used to Student Appointment Schedules and Basic Student Information prior to the enrollment. This repository stores permanent student information that can be accessed by the NBCCSMS Central Database.
STATUS		Continuous Buildup
INFORMATION SYSTEM SERVED		Admission System and Exam Appointment IS
DATA ARCHIVING /STORAGE MEDIA		Local Storage Located in the College Guidance and Admission Office
USERS	INTERNAL	Students and NBSC Constituents
	EXTERNAL	General Public
OWNER		Guidance and Admission Office

NAME OF DATABASE		C.5 NBSCSMS_ GRADING-DB (Using MySQL 5.6.12)
GENERAL CONTENTS / DESCRIPTION		The NBSCSMS_ GRADING-DB has been used as a repository of all student grades that is responsible in generation of the Transcript of Records and Internal Evaluation of Grades. This repository stores permanent student information and its grade to their subjects taken.
STATUS		Continuous Buildup
INFORMATION SYSTEM SERVED		Faculty Grade portal and the Registrar’s Portal
DATA ARCHIVING /STORAGE MEDIA		Local Storage Located in the College Guidance and Admission Office
USERS	INTERNAL	NBSC faculty and Registrar’s Office
	EXTERNAL	CHED,Students and Parents
OWNER		Registrar’s Office





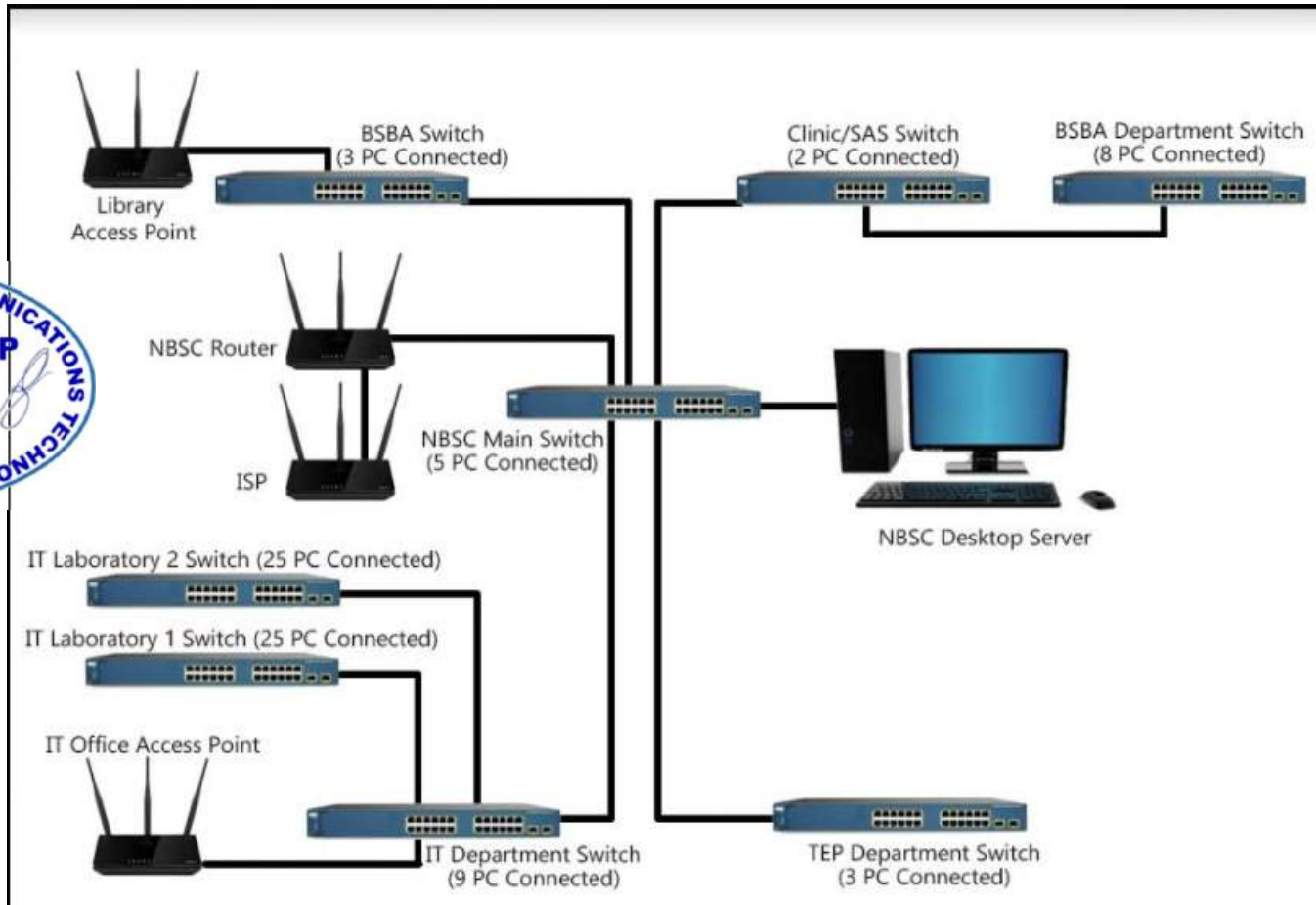
NAME OF DATABASE		C.6 NBSCSMS_ ADMIN-DB (Using MySQL 5.6.12)
GENERAL CONTENTS / DESCRIPTION		The NBSCSMS_ ADMIN-DB has been used as a repository of all necessary information that is beneficial to the generation of reports used by the administration for Decision Making.
STATUS		Continuous Buildup
INFORMATION SYSTEM SERVED		Admin Portal
DATA ARCHIVING /STORAGE MEDIA		Local Storage
USERS	INTERNAL	NBSC Administration
	EXTERNAL	HED, COA, DBM and General Public
OWNER		NBSC Admin Office





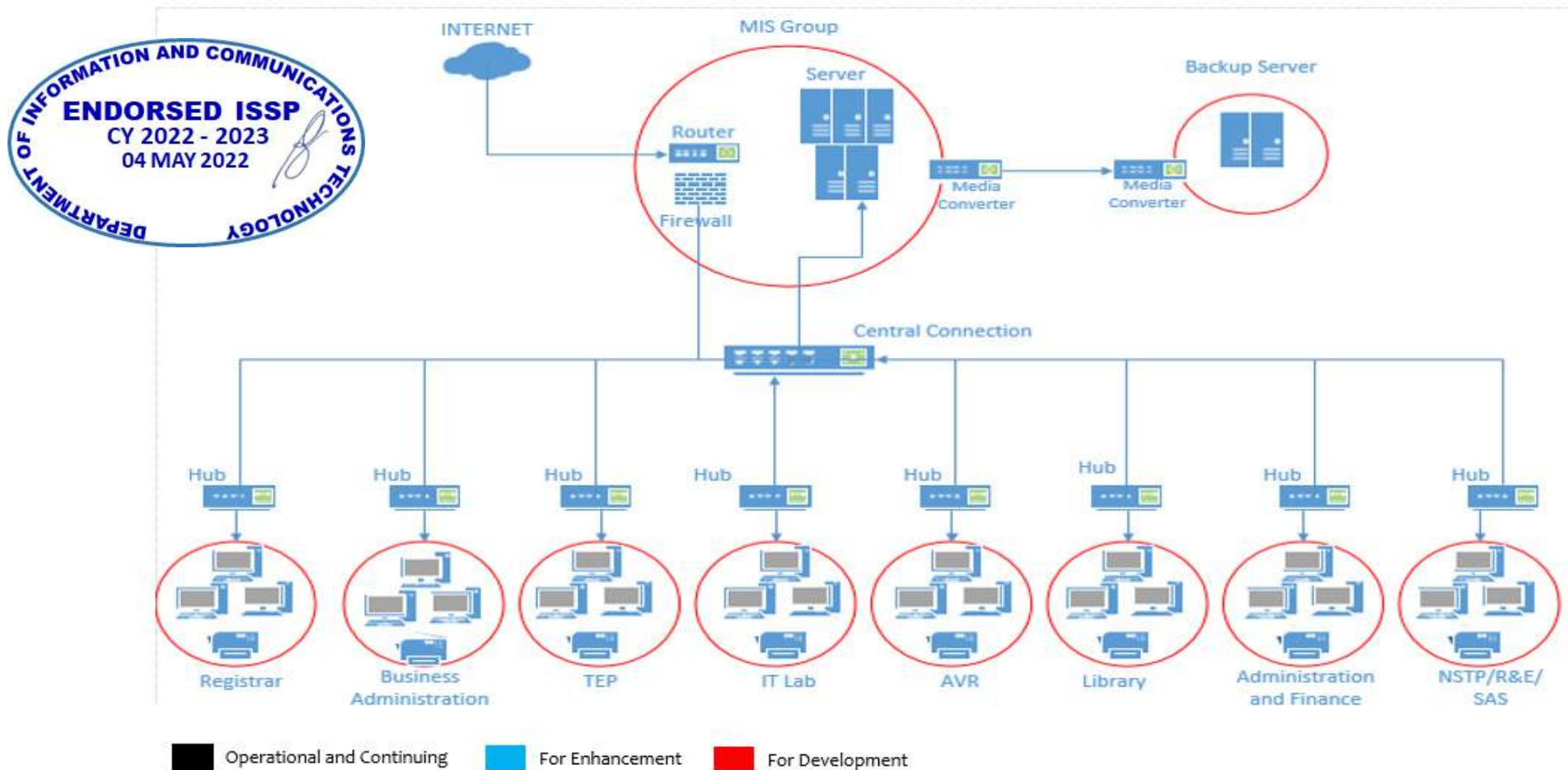
D. NETWORK LAYOUT

a. EXISTING NETWORK LAYOUT





b. PROPOSED NETWORK LAYOUT





PART III. DETAILED DESCRIPTION OF ICT PROJECTS

A. INTERNAL ICT PROJECTS

NAME/TITLE	A.1 Upgrading of the Network Infrastructure and Fiber Line Connectivity of NBSC
OBJECTIVES	<ul style="list-style-type: none"> To establish the data center room for NBSC that uses ICT Technologies to support core functions of the college that supports the day to day transaction of the college and supports the new normal learning modality of the students. To upgrade existing ICT hardware, including Network Equipment's and Software Components used by the college to a more dynamic. modernized and efficient ICT Infrastructure. Purchase necessary ICT equipment to support day to day school operation. Subscription of a fiber line for internet connectivity of the college
DURATION	FY 2021 - 2023
DELIVERABLES	<ul style="list-style-type: none"> Policies for Issuance Procurement of necessary ICT equipment and Software Training Pilot Testing Kick off





NAME/TITLE	A.2 Development of a School Management System and Learning Management System of NBSC
OBJECTIVES	<ul style="list-style-type: none"> To establish a centralized system for all necessary functions of the college through an Enterprise System Solution To host a Learning Management System, A requirement of CHED for Dynamic Learning and Support to the New Normal Flexible Learning Experience of 21st Generation Students.
DURATION	FY 2022
DELIVERABLES	<ul style="list-style-type: none"> Policies for Issuance Procurement of the School Management System and LMS of the College Training Pilot Testing Kick off

NAME/TITLE	A.3 Enhancement of IT Laboratories, Simulation Labs and Offices of NBSC
OBJECTIVES	<ul style="list-style-type: none"> To be able to respond the objectives of the courses in the curriculum by conforming to generally accepted industry standards and be capable of providing training in multiple platforms.
DURATION	FY 2022 -2023
DELIVERABLES	<ul style="list-style-type: none"> Policies for Issuance Procurement of necessary ICT equipment and Software Training Pilot Testing Kick off

B. CROSS-AGENCY ICT PROJECTS: NONE





C. PERFORMANCE MEASUREMENT FRAMEWORK

C.1 Internal ICT Project 1

Upgrading of the Network Infrastructure with and Fiber Line Connectivity of NBSC					
Hierarchy of targeted results	Objectively verifiable indicators (OVI)	Baseline data	Targets	Data collection methods	Responsibility to collect data
INTERMEDIATE OUTCOME <ul style="list-style-type: none"> Immediate access to quality higher education services for the policy and standards development Improved monitoring of Higher Education Outcomes and Outputs. 	<i>Satisfaction rate in data access by NBSC Management</i>	0	Increased by 40%	CSS	Quality Assurance Office
	<i>% completeness of HEI Data needed</i>	40%	Increase to 60%	CHED Assessment Monitoring Tool	
IMMEDIATE OUTCOMES <ul style="list-style-type: none"> Improved School Data Management Improve Internet Connectivity and Quality of Services 	<i>Number of days in locating School related data</i>	5 days	Decreased by 1	Specialized Survey	Management Information System Office
	<i>% of school official using system</i>	0	Increase by 50%	System Logs	
	<i>Bandwidth allocation</i>	10Mbps	100Mbps	Speedtest Compilations And System Logs for iNternet Connectivity	





C.2 Internal ICT Project 2

Development of a School Management System and Learning Management System of NBSC					
Hierarchy of targeted results	Objectively verifiable indicators (OVI)	Baseline data	Targets	Data collection methods	Responsibility to collect data
INTERMEDIATE OUTCOME <ul style="list-style-type: none"> Immediate use of the Learning Management System both the students and teachers 	<i>Number of Faculty incorporating LMS as their medium of instruction, Data Storage, Instructional Material Creation, Exam Data Banking.</i>	0	Increase by 20	System Log records on faculty registrations and utilization	Management Information System Office
	<i>Number of Students able to successfully access the LMS and its functionalities</i>	0%	Increase by 50%	System Log records on student registrations and utilization	
IMMEDIATE OUTCOMES <ul style="list-style-type: none"> Faster Access to school transaction services 	<i>% decrease in response time for request for services</i>	10%	5%	System Generated	Each offices





C.3 Internal ICT Project 3

Enhancement of IT Laboratories, Simulation Labs and Offices of NBSC					
Hierarchy of targeted results	Objectively verifiable indicators (OVI)	Baseline data	Targets	Data collection methods	Responsibility to collect data
INTERMEDIATE OUTCOME <ul style="list-style-type: none"> Standardized a 1:1 ratio to IT Laboratory and other Computer Laboratory Increase faculty and personnel access to school Information system and services Increase in the utilization of Genuine Software especially on Office Productivity 	<i>Number of Laboratory with a 1:1 ratio</i> <i>Number of Offices with access to ICT Equipment and School Management System</i> <i>% of Faculty and staff uses genuinely acquired software and programs</i>	0 10 5%	Increase by 4 Increase by 15 50%	Actual Utilization of Desktop Computers through Teacher's Seat Plan and Logbooks MIS Inventory MIS Inventory	College of Computer Studies Management Information System Office
IMMEDIATE OUTCOME <ul style="list-style-type: none"> Increase in student enrollment 	<i>% of students who will enroll in the college</i>	5%	10%	System Generated	Registrar's Office





PART IV. RESOURCES REQUIREMENTS

A. DEPLOYMENT OF ICT EQUIPMENT AND SERVICES

ITEM	NAME OF OFFICE/ORGANIZATION UNITS	PROPOSED NUMBER OF UNITS		
		2021	2022	2023
I. Office Productivity				
A. Capital Outlay				
a. ICT Equipment				
1. Branded Desktop PC Passmark 8681	Office of the College President	0	2	1
	Office of the VP for Academic Affairs	0	2	1
	Office of the Chief Administrative Officer	0	2	1
	Office of the HR Director	0	4	2
	Office of the Quality Assurance	0	2	1
	Office of the Alumni Affairs	0	2	1
	Health Services Office	0	2	1
	Safety and Security Office	0	2	1
	Planning Office	0	2	1
	Accounting Office	0	4	2
	Budget Office	0	2	1
	Supply Office	0	2	1
	Communications and External Relations Office	0	2	1
	Registrar's Office	0	5	2
	Teaching and Learning Center	0	2	1
	Guidance Counselor	0	2	1
	Culture and Arts Office	0	2	1
	Testing and Admission	0	2	1
	Library – For e-Library Laboratory	0	25	10
	Student Affairs Office	0	1	1





ITEM	NAME OF OFFICE/ORGANIZATION UNITS	PROPOSED NUMBER OF UNITS		
		2021	2022	2023
	Research and Extension Office	0	2	2
	Publications Office	0	4	2
	College of Business Administration	0	2	2
	College of Education Faculty office	0	8	2
	College of Computer Studies (For the 3 Additional IT Laboratory with 50 PC Each Lab)	0	150	50
	Sub Total	0	235	90
2. Laptop	MIS (to be issued to faculty and staff)	0	80	20
	Office of the College President	0	1	1
	Office of the VP for Academic Affairs	0	0	1
	Office of the Chief Administrative Officer	1	1	0
	Office of the HR Director	1	1	0
	Office of the Quality Assurance	1	0	0
	Office of the Alumni Affairs	1	1	0
	Health Services Office	1	1	0
	Safety and Security Office	0	1	0
	Planning Office	1	0	0
	Accounting Office	1	0	0
	Budget Office	1	0	0
	Supply Office	1	0	0
	Communications and External Relations Office	1	0	0
	Registrar's Office	1	1	0
	Teaching and Learning Center	1	0	0
	Guidance Counselor	1	1	0
	Culture and Arts Office	1	0	0
	Testing and Admission	1	1	0
	Student Affairs Office	1	1	0





ITEM	NAME OF OFFICE/ORGANIZATION UNITS	PROPOSED NUMBER OF UNITS		
		2021	2022	2023
	Research and Extension Office	0	1	0
	Publications Office	1	1	0
	College of Business Administration	1	15	5
	College of Education Faculty office	1	10	5
	College of Computer Studies	1	10	5
	Arts and Sciences (GEC Faculty Office)	0	33	5
	Sub Total	20	160	42
3. LCD Projectors	MIS	0	4	2
	College of Business Administration	0	2	2
	College of Education Faculty office	0	2	2
	College of Computer Studies	0	5	5
	Arts and Sciences (GEC Faculty Office)	0	2	3
	Office of the College President	0	1	1
	Office of the VP for Academic Affairs	0	1	1
	Office of the Chief Administrative Officer	0	1	1
	Office of the HR Director	0	1	1
	Office of the Quality Assurance	0	1	1
	Planning Office	0	1	1
	Accounting Office	0	1	1
	Budget Office	0	1	1
	Supply Office	0	1	1
	Teaching and Learning Center	0	1	2
	Guidance Counselor	0	1	1
	Culture and Arts Office	0	1	1
	Testing and Admission	0	1	1
	Student Affairs Office	0	1	1
	Office of the Director for Research and Extension	0	1	1
	Total	0	30	30





ITEM	NAME OF OFFICE/ORGANIZATION UNITS	PROPOSED NUMBER OF UNITS		
		2021	2022	2023
b. Printing Equipment				
1. Inkjet Printer (3-in-1)	Office of the College President	0	2	1
	Office of the VP for Academic Affairs	0	2	1
	Office of the Chief Administrative Officer	0	2	1
	Office of the HR Director	0	2	1
	Office of the Quality Assurance	0	3	1
	Office of the Alumni Affairs	0	1	1
	Health Services Office	0	1	1
	Safety and Security Office	0	1	2
	Planning Office	0	2	2
	Accounting Office	0	2	1
	Budget Office	0	2	1
	Supply Office	0	4	1
	Communications and External relations Office	0	2	1
	Registrar's Office	0	4	1
	Teaching and Learning Center	0	2	1
	Guidance Counselor	0	2	1
	Culture and Arts Office	0	2	1
	Testing and Admission	0	3	1
	Library	0	3	1
	Student Affairs Office	0	3	1
	Research and Extension Office	0	2	1
	Publications Office	0	3	1
	College of Business Administration	0	3	2
	College of Education	0	5	1
	College of Computer Studies	0	2	1
	Arts and Sciences (GEC)	0	5	2
	Total	0	65	30





ITEM	NAME OF OFFICE/ORGANIZATION UNITS	PROPOSED NUMBER OF UNITS		
		2021	2022	2023
2. Digital Multifunctional Photocopiers	Office of the College President	0	1	1
	Office of the VP for Academic Affairs	0	1	1
	Office of the Chief Administrative Officer	0	1	1
	Office of the HR Director	0	1	1
	Office of the Quality Assurance	0	1	1
	Health Services Office	0	1	1
	Safety and Security Office	0	1	1
	Planning Office	0	1	1
	Accounting Office	0	1	1
	Budget Office	0	1	1
	Supply Office	0	1	1
	Registrar's Office	0	1	1
	Teaching and Learning Center	0	1	1
	Guidance Counselor	0	1	1
	Culture and Arts Office	0	1	1
	Testing and Admission	0	1	1
	Library	0	1	1
	Student Affairs Office	0	1	1
	Research and Extension Office	0	1	1
	Publications Office	0	1	1
College of Business Administration	0	1	1	
College of Education	0	1	1	
College of Computer Studies	0	1	1	
Arts and Sciences (GEC)	0	1	1	
MIS	0	2	2	
	Total	0	26	26





ITEM	NAME OF OFFICE/ORGANIZATION UNITS	PROPOSED NUMBER OF UNITS		
		2021	2022	2023
b. ICT Software				
1. Licensed Operating System	MIS	0	200	50
2. Office Productivity Software	MIS	0	100	50
II. Upgrading of the Network Infrastructure and Fiber Line Connectivity of NBSC				
A. Capital Outlay				
a. ICT Equipment				
1. High-End Desktop Computers	MIS	0	10	5
2. Server Desktop PC	MIS	0	5	3
3. Server	MIS	0	4	2
4. Backup Power (UPS) 50KVA	MIS	0	2	1
5. Cooling System	MIS	0	2	1
6. Server Rack	MIS	0	3	1
7. Ethernet Gigabit Switch	MIS	0	10	5
8. Router (Modular)	MIS	0	2	2
9. Security Surveillance System	MIS	0	1	1
10. Finger Print Biometric	MIS	0	2	2
11. Fire Suppression System	MIS	0	2	2
12. VLAN Switch	MIS	0	2	1
13. 80" LCD TV	MIS	0	1	0
	Office of the College President	0	1	0
	Security Office	0	2	2
14. Surge Protector	MIS	0	2	2
15. Firewall	MIS	0	1	0
16. VOIP Telephones	MIS	0	30	10
17. Network Cables and other Peripherals	MIS	0	10	10





ITEM	NAME OF OFFICE/ORGANIZATION UNITS	PROPOSED NUMBER OF UNITS		
		2021	2022	2023
b. Printing Equipment				
1. High-end Printer (inkjet)	MIS	0	2	2
c. ICT Software				
1. Bandwidth Manager	MIS	0	1	1
2. DBMS-SQL Server	MIS	0	1	1
3. Network Operating System (NOS)	MIS	0	1	1
d. Infrastructure Outlay				
1. Fiber Optic Backbone w/ Optical Distribution Frame (ODF) incl Fiber Modem and Pigtail (Structured Cabling)	MIS	0	1	1
2. Raised Floor for Data Server Room	MIS	0	1	0
3. Security Doors for Data Server Room	MIS	0	1	0
B. MOOE				
a. Professional Services				
1. Job Order (Network Specialist)	MIS	0	2	2
2. Job Order (Computer Maintenance)	MIS	0	2	2
3. Job Order (Website Admin)	MIS	0	1	1
4. Job Order (System Admin)	MIS	0	1	1
5. Job Order (Programmer)	MIS	0	2	2
b. Internet Subscription Expenses				
1. Leased Line (ISP)	MIS	0	2	2
c. Other MOOE				
Website Maintenance				
1. Web and Domain Hosting and Maintenance	MIS	0	1	1
III. Development of a School Management System and Learning Management System of NBSC				
A. Capital Outlay				





ITEM	NAME OF OFFICE/ORGANIZATION UNITS	PROPOSED NUMBER OF UNITS		
		2021	2022	2023
ICT Software				
1. School Management System-ERP	Management Information System	0	1	1
2. Learning Management System (LMS)	Management Information System	0	1	0
3. E-Book Portal	Library	0	1	1
4. Follet Library System	Library	0	1	0
B. MOOE				
a. Subscription Expenses				
ICT Software Subscription Expenses				
1. Video Conferencing Subscription	Management Information System	0	1	1
2. Anti-Virus	Management Information System	0	1	1
3. Google Workspace Account	Management Information System	0	1	1
4. Classroom Management Software	College of Computer Studies	0	1	0
IV. Enhancement of IT Laboratories, Simulation Labs and Offices of NBSC				
A. Capital Outlay				
a. ICT Equipment				
1. Distribution Switches (Fixed configuration)	College of Computer Studies-IT Laboratory	0	4	2
2. High End LCD Projectors (External Use)	MIS	0	2	1
3. DSLR Camera	MIS and Communication Office	0	2	1
4. CCTV	Office of the College President	0	1	0
	Office of the VP for Academic Affairs	0	0	1
	Office of the Chief Administrative Officer	0	1	0
	Office of the HR Director	0	0	1
	Office of the Quality Assurance	0	0	1
	Office of the Alumni Affairs	0	0	1
	Health Services Office	0	0	1
	Safety and Security Office	0	1	1





ITEM	NAME OF OFFICE/ORGANIZATION UNITS	PROPOSED NUMBER OF UNITS		
		2021	2022	2023
	Planning Office	0	1	0
	Accounting Office	0	0	1
	Budget Office	0	0	1
	Supply Office	0	0	1
	Communications and External Relations Office	0	1	0
	Registrar's Office	0	1	0
	Teaching and Learning Center	0	0	1
	Guidance Counselor	0	0	1
	Culture and Arts Office	0	0	1
	Testing and Admission	0	1	0
	Library	0	2	0
	Student Affairs Office	0	1	0
	Research and Extension Office	0	0	1
	Publications Office	0	0	1
	College of Business Administration	0	0	1
	College of Education	0	0	1
	College of Computer Studies –IT Laboratory	0	2	2
	Total	0	12	18
b. Printing Equipment				
1. I.D. Printer	HR and Student Affairs	0	2	1
2. RFID Printer	MIS	0	1	1
3. RFID Scanner	MIS	0	2	2
4. Tarpaulin Printer	MIS / Printing Press	0	1	0
c. ICT Software				
1. Licensed Operating Software – IT Laboratory Use	College of Computer Studies – IT Laboratories	0	200	50
2. Office Productivity Software -Laboratory	Management Information System – to be issued to all offices.	0	100	20





ITEM	NAME OF OFFICE/ORGANIZATION UNITS	PROPOSED NUMBER OF UNITS		
		2021	2022	2023
3. Statistical Software	Research and Extension	1	1	1
4. Designing Software	MIS	0	1	1
5. GIS Software	Research Office	0	1	0
6. Plagiarism Checker	Research and Extension	0	1	0
7. Grammar Checker	Research and Extension	0	1	0
8. Video Editing Software	Communication Office	0	1	1
9. Photo Editing Software	MIS	0	1	1
B. MOOE				
a. ICT Supplies				
1. RJ45	MIS	0	20	20
2. Cables and other Peripherals	MIS	0	5	5
3. UTP Cable	MIS	0	20	20
b. Semi-Expendable Machinery and Equipment Expenses				
-ICT Equipment				
1. Hard disk	MIS	0	50	50
2. Solid State Disk	MIS	0	50	50
3. Random Access Memory (RAM)	MIS	0	50	50
4. LCD Monitor	MIS	0	50	50
5. Distribution Switches (Fixed Configuration)	MIS	0	20	20
6. Distribution Router	MIS	0	5	5
7. Keyboard	MIS	0	100	50
8. Mouse	MIS	0	100	50
9. Motherboard	MIS	0	50	20
10. Processor	MIS	0	50	20
11. Heavy duty Vacuum Blower	MIS	0	10	10
12. Automatic Voltage Regulator	MIS	0	200	50





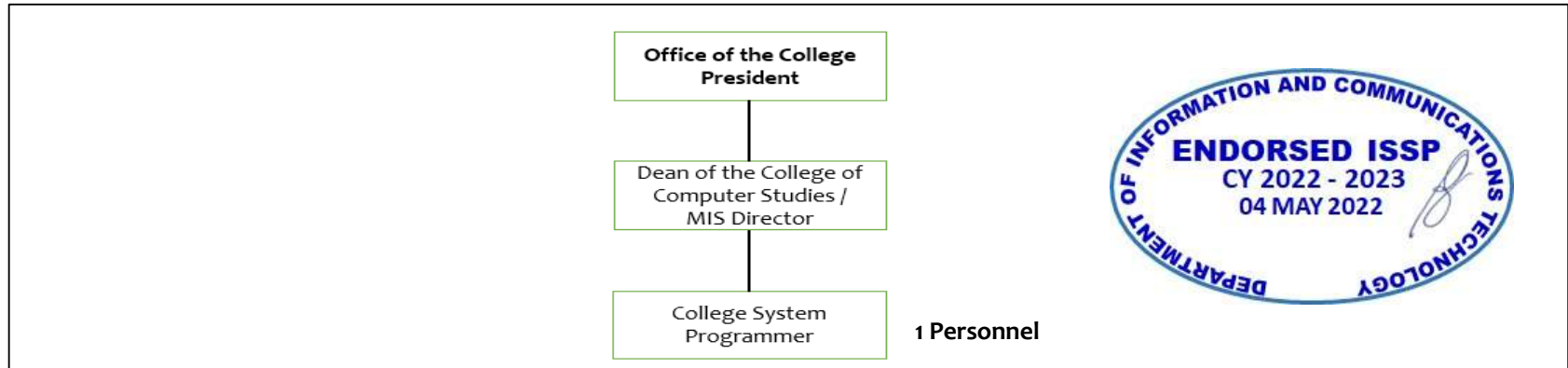
ITEM	NAME OF OFFICE/ORGANIZATION UNITS	PROPOSED NUMBER OF UNITS		
		2021	2022	2023
13. Video Card	College of Computer Studies – for IT Laboratory 3	0	50	50
14. Uninterruptable Power Supply (UPS)	College of Computer Studies –4 IT Laboratory	0	100	50
15. Web Cam (HD 1080P)	MIS	0	200	50
16. Computer Headset	MIS	0	50	20
17. Power Supply (True Rated)	MIS	0	50	50
18. Computer Casing (Tower Case)	MIS	0	50	50
19. Wifi Adapter (Extender)	MIS	0	50	20
20. Computer Repair Tools/Equipment	MIS	0	10	10
21. Graphics/Pen Tablet	College of Computer Studies	0	20	20



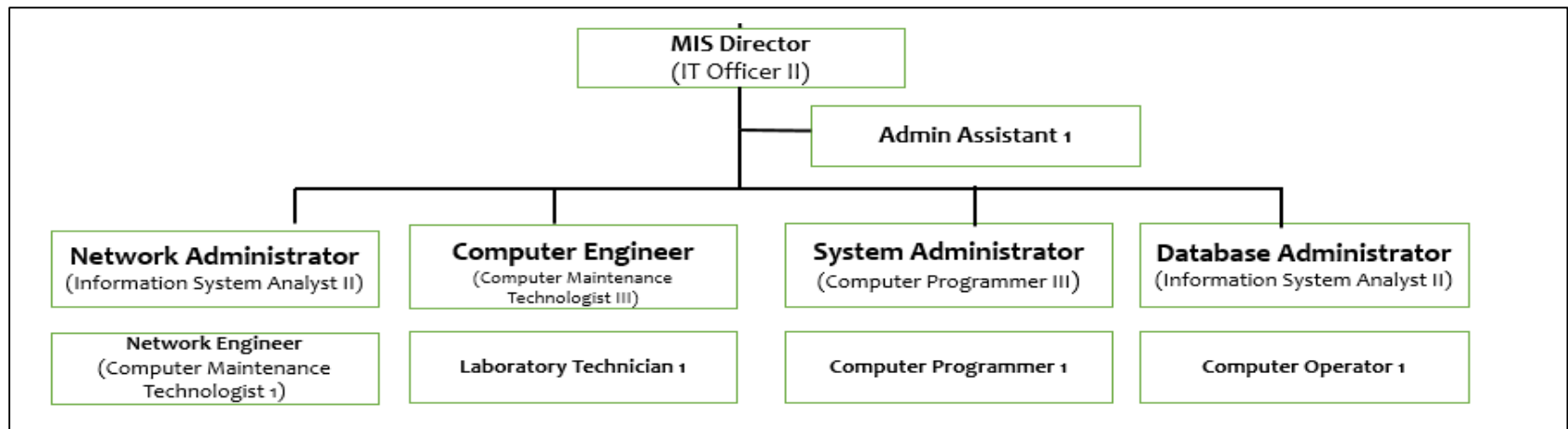


B. ICT ORGANIZATIONAL STRUCTURE

B.1 EXISTING ICT ORGANIZATIONAL STRUCTURE



B.2 PROPOSED ICT ORGANIZATIONAL STRUCTURE





DESCRIPTIONS OF PROPOSED POSITIONS

PLANTILLA POSITIONS	DESCRIPTIONS	No. of Personnel
Information Technology II	<ul style="list-style-type: none"> Oversee computer operations, data entry, data control, and system operations support. Leads the ICT software and hardware helpdesk, on the use, installation, configuration of applications, and trouble shooting and possible repair of ICT equipment's. Assess staff training requirements and creates programs to meet career development needs. Plans and administers technical training seminars on specialized software applications. Reviews existing server and storage infrastructures of clients and recommend changes to enhance he reliability, availability and security level. Designs and document the infrastructure solution, including complex architecture design, product selection and budget estimation. Offers technical assistance to the entire College. Advises managers concerning MIS trends, technical problems, need for equipment, need for software upgrading and priorities. 	1
Information System Analyst II	<ul style="list-style-type: none"> Formulates database structures and design for the agency; Maintains and manages the Agency's Website and the corporate database; Prepares required reports of the agency for submission to other government offices Assists in the preparation of NBSC Information System Strategic Plan (ISSP); Prepares Terms of References (TOR); Conducts Information Systems User's Training; Serves as IT Technical Committee secretariat; Prepares IT Procurement Plan and HARDWARE/ SOFTWARE Inventory; Establishes links and network with other national and international IT groups; Performs other related duties that may be assigned 	1
Computer Maintenance Technologist III	<ul style="list-style-type: none"> Maintain the Network Infrastructure of the Agency Prepares required reports of the agency for submission to other government offices Assists in the preparation of NBSC Information System Strategic Plan (ISSP); Prepares Terms of References (TOR); Conducts Information Systems User's Training; 	1



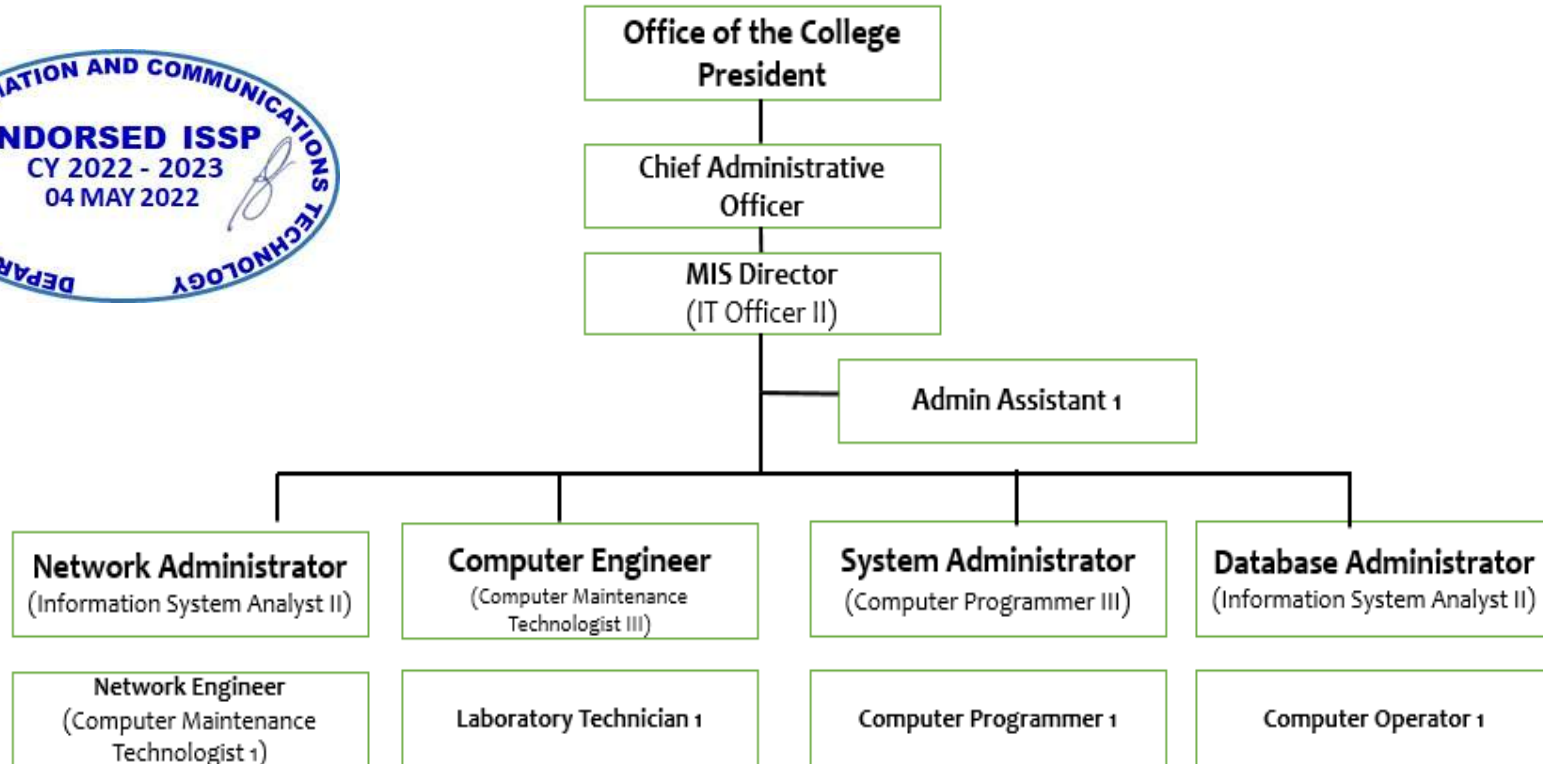


	<ul style="list-style-type: none"> Serves as IT Technical Committee secretariat; Prepares IT Procurement Plan and HARDWARE/ SOFTWARE Inventory; Establishes links and network with other national and international IT groups; Performs other related duties that may be assigned 	
Computer Programmer III	<ul style="list-style-type: none"> Design and Develop Programs and Systems for the agency; Maintains and manages the Agency’s Website and the corporate database; Prepares required reports of the agency for submission to other government offices Assists in the preparation of NBSC Information System Strategic Plan (ISSP); Prepares Terms of References (TOR); Conducts Information Systems User’s Training; Serves as IT Technical Committee secretariat; Prepares IT Procurement Plan and HARDWARE/ SOFTWARE Inventory; Establishes links and network with other national and international IT groups; Performs other related duties that may be assigned 	1
Computer Maintenance Technologist I	<ul style="list-style-type: none"> Assist the Network Administrator in maintaining and Designing Network Infrastructure Prepares Terms of References (TOR); Conducts Information Systems User’s Training; Serves as IT Technical Committee secretariat; Prepares IT Procurement Plan and HARDWARE/ SOFTWARE Inventory; 	1
Laboratory Technician 1	<ul style="list-style-type: none"> Assist the Computer Engineer in maintaining computer and ICT equipment of the college Create inventory reports of all UCT Equipment in the college 	1
Computer Programmer 1	<ul style="list-style-type: none"> Assist the System Administrator in designing and developing program and system of the college Create inventory reports of all system and programs in the college 	1
Computer Operator 1	<ul style="list-style-type: none"> Assist in the database structures and design for the agency; Helps to Maintain and manage the Agency’s Website and the corporate database; Help in crafting the report necessary for the database Administrator and for the MIS as a whole 	1





B3. PLACEMENT OF THE PROPOSED ICT ORGANZIATIONAL STRUCTURE IN THE AGENCY ORGANIZATIONAL CHART





PART V. DEVELOPMENT AND INVESTMENT PROGRAM

A. ICT PROJECTS IMPLEMENTATION SCHEDULE

NAME OF ICT PROJECTS	2021	2022	2023
1. Upgrading of the Network Infrastructure including the subscription of a Fiber Line for Internet Connectivity of NBSC			
2. Acquisition of a School Management System and Learning Management System of NBSC			
3. Acquisition of additional Personal Computers, Licensed Software and other ICT Equipment's for the Proposed additional IT Laboratories, Simulation Labs and Offices of NBSC			

B. INFORMATION SYSTEM (IS) IMPLEMENTATION SCHEDULE

NAME OF INFORMATION SYSTEMS/SUB-SYSTEMS OR MODULES	2021	2022	2023
1. Improvement of the Student Portal			
1.1 Student Affairs Information System			
1.2 Student Information System			
2. Improvement of the Administrative Portal			
2.1 Report Information System			
2.2 Financial Information System			
3. Improvement in the Admission System			
3.1 Exam Appointment System			
3.2 Admission System			
4. School Management System (ERP)			
5. Learning Management System			
6. Faculty Evaluation System			
7. Grading Portal			





C. SUMMARY OF INVESTMENTS

ITEM	2021		2022		2023	
	Physical Targets	COST	Physical Targets	COST	Physical Targets	COST
I. Office Productivity						
A. Capital Outlay						
a. ICT Equipment						
1. Branded Desktop PC Passmark 8681			235	11,750,000.00	90	4,500,000.00
2. Laptop	20	1,000,000.00	160	6,400,000.00	42	1,680,000.00
3. LCD Projectors			30	1,500,000.00	30	1,500,000.00
b. Printing Equipment						
1. Inkjet Printer (3-in-1)			65	780,000.00	30	360,000.00
2. Digital Multifunctional Photocopiers			26	1,690,000.00	26	1,690,000.00
b. ICT Software						
1. Licensed Operating System			200	3,000,000.00	50	750,000.00
2. Office Productivity Software			100	1,700,000.00	50	850,000.00
II. Upgrading of the Network Infrastructure and Fiber Line Connectivity of NBSC						
A. Capital Outlay						
a. ICT Equipment						
1. High-End Desktop Computers			10	60,000.00	5	300,000.00
2. Server Desktop PC			5	250,000.00	3	150,000.00
3. Server			4	4,000,000.00	2	2,000,000.00
4. Backup Power (UPS) 50KVA			2	260,000.00	1	130,000.00
5. Cooling System			2	240,000.00	1	120,000.00
6. Server Rack			3	150,000.00	1	50,000.00
7. Ethernet Gigabit Switch			10	70,000.00	5	50,000.00
8. Router (Modular)			2	60,000.00	2	60,000.00





ITEM	2021		2022		2023	
	Physical Targets	COST	Physical Targets	COST	Physical Targets	COST
9. Security Surveillance System			1	3,000,000.00	1	3,000,000.00
10. Finger Print Biometric			2	30,000.00	2	30,000.00
11. Fire Suppression System			2	50,000.00	2	50,000.00
12. VLAN Switch			2	300,000.00	1	300,000.00
13. 80" LCD TV			4	800,000.00	2	400,000.00
14. Surge Protector			2	50,000.00	2	50,000.00
15. Firewall			1	800,000.00	0	0.00
16. VOIP Telephones			30	300,000.00	10	100,000.00
17. Network Cables and other Peripherals			10	100,000.00	10	100,000.00
b. Printing Equipment						
1. High-end Printer (inkjet)			2	80,000.00	2	80,000.00
c. ICT Software						
1. Bandwidth Manager			1	200,000.00	1	200,000.00
2. DBMS-SQL Server			1	20,000.00	1	20,000.00
3. Network Operating System (NOS)			1	50,000.00	1	20,000.00
d. Infrastructure Outlay						
1. Fiber Optic Backbone w/ Optical Distribution Frame (ODF) incl Fiber Modem and Pigtail (Structured Cabling)			1	3,000,000.00	1	3,000,000.00
2. Raised Floor for Data Server Room			1	500,000.00	0	0.00
3. Security Doors for Data Server Room			1	50,000.00	0	0.00
B. MOOE						
a. Professional Services						
1. Job Order (Network Specialist)			2	466,560.00	2	466,560.00
2. Job Order (Computer Maintenance)			2	466,560.00	2	466,560.00





ITEM	2021		2022		2023	
	Physical Targets	COST	Physical Targets	COST	Physical Targets	COST
3. Job Order (Website Admin)			1	233,280.00	1	233,280.00
4. Job Order (System Admin)			1	233,280.00	1	233,280.00
5. Job Order (Programmer)			2	466,560.00	2	466,560.00
b. Internet Subscription Expenses						
1. Leased Line (ISP)			2	4,000,000.00	2	4,000,000.00
c. Other MOOE						
Website Maintenance						
1. Web and Domain Hosting and Maintenance			1	200,000.00	1	200,000.00
III. Development of a School Management System and Learning Management System of NBSC						
A. Capital Outlay						
ICT Software						
1. School Management System-ERP			1	6,000,000.00	1	6,000,000.00
2. Learning Management System (LMS)			1	1,000,000.00	0	0.00
3. E-Book Portal Subscription			1	3,500,000.00	1	3,500,000.00
4. Follet Library System			1	1,650,000.00	0	0.00
A. MOOE						
a. Subscription Expenses						
ICT Software Subscription Expenses						
1. Video Conferencing Subscription			1	100,000.00	1	100,000.00
2. Anti-Virus			1	160,000.00	1	160,000.00
3. Google Workspace Account			1	10,000.00	1	10,000.00
4. Classroom Management Software			1	20,000.00	0	0.00
IV. Enhancement of IT Laboratories, Simulation Labs and Offices of NBSC						
A. Capital Outlay						
a. ICT Equipment						





ITEM	2021		2022		2023	
	Physical Targets	COST	Physical Targets	COST	Physical Targets	COST
1. Distribution Switches (Fixed configuration)			4	32,000.00	2	16,000.00
2. High End LCD Projectors (External Use)			2	300,000.00	1	150,000.00
3. DSLR Camera			2	100,000.00	1	50,000.00
4. CCTV			12	600,000.00	18	900,000.00
b. Printing Equipment						
1. I.D. Printer			2	150,000.00	1	75,000.00
2. RFID Printer			1	65,000.00	1	65,000.00
3. RFID Scanner			2	20,000.00	2	20,000.00
4. Tarpaulin Printer			1	250,000.00	0	0.00
c. ICT Software						
1. Licensed Operating Software – IT Laboratory Use			200	3,000,000.00	50	750,000.00
2. Office Productivity Software -Laboratory			100	1,700,000.00	20	340,000.00
3. Statistical Software			1	70,000.00	1	70,000.00
4. Designing Software			1	20,000.00	1	20,000.00
5. GIS Software			1	20,000.00	0	0.00
6. Plagiarism Checker			1	1,000,000.00	0	0.00
7. Grammar Checker			1	200,000.00	0	0.00
8. Video Editing Software			1	12,000.00	1	12,000.00
9. Photo Editing Software			1	13,000.00	1	13,000.00
B. MOOE						
a. ICT Supplies						
1. RJ45			20	20,000.00	20	20,000.00
2. Cables and other Peripherals			5	50,000.00	5	50,000.00
3. UTP Cable			20	20,000.00	20	20,000.00
b. Semi-Expendable Machinery and Equipment Expenses						





ITEM	2021		2022		2023	
	Physical Targets	COST	Physical Targets	COST	Physical Targets	COST
-ICT Equipment						
1. Hard disk			50	200,000.00	50	200,000.00
2. Solid State Disk			50	400,000.00	50	400,000.00
3. Random Access Memory (RAM)			50	250,000.00	50	250,000.00
4. LCD Monitor			50	160,000.00	50	160,000.00
5. Distribution Switches (Fixed Configuration)			20	80,000.00	20	80,000.00
6. Distribution Router			5	50,000.00	5	50,000.00
7. Keyboard			100	30,000.00	50	15,000.00
8. Mouse			100	30,000.00	50	15,000.00
9. Motherboard			50	400,000.00	20	160,000.00
10. Processor			50	600,000.00	20	240,000.00
11. Heavy duty Vacuum Blower			10	20,000.00	10	20,000.00
12. Automatic Voltage Regulator			200	100,000.00	50	25,000.00
13. Video Card			50	400,000.00	50	400,000.00
14. Uninterruptable Power Supply (UPS)			100	800,000.00	50	400,000.00
15. Web Cam (HD 1080P)			200	400,000.00	50	100,000.00
16. Computer Headset			50	150,000.00	20	60,000.00
17. Power Supply (True Rated)			50	100,000.00	50	100,000.00
18. Computer Casing (Tower Case)			50	60,000.00	50	60,000.00
19. Wifi Adapter (Extender)			50	25,000.00	20	10,000.00
20. Computer Repair Tools/Equipment			10	100,000.00	10	100,000.00
21. Graphics/Pen Tablet			20	100,000.00	20	100,000.00
IV. Smart Campus Development Plan (CHED-IDIG) Grant	1	8,500,000.00				
TOTAL		9,500,000.00		71,843,240.00		42,892,240.00





D.1 2021 COST BREAKDOWN

	<i>Office Productivity</i>	Upgrading of the Network Infrastructure and Fiber Line Connectivity of NBSC	Development of a School Management System and Learning Management System of NBSC	Enhancement of IT Laboratories, Simulation Labs and Offices of NBSC
A. Capital Outlay				
a. ICT Equipment				
1. Laptop	1,000,000.00			
Smart Campus Development Plan (CHED-IDIG) Grant	8,500,000.00			
TOTAL COST (A)	9,500,000.00	0.00	0.00	0.00





D.2 2022 COST BREAKDOWN

	<i>Office Productivity</i>	Upgrading of the Network Infrastructure and Fiber Line Connectivity of NBSC	Development of a School Management System and Learning Management System of NBSC	Enhancement of IT Laboratories, Simulation Labs and Offices of NBSC
A. Capital Outlay				
a. ICT Equipment				
1. Branded Desktop PC Passmark 8681	11,750,000.00			
2. Laptop	6,400,000.00			
3. LCD Projectors	1,500,000.00			
4. High-End Desktop Computers		60,000.00		
5. Server Desktop PC		250,000.00		
6. Server		4,000,000.00		
7. Backup Power (UPS) 50KVA		260,000.00		
8. Cooling System		240,000.00		
9. Server Rack		150,000.00		
10. Ethernet Gigabit Switch		70,000.00		
11. Router (Modular)		60,000.00		
12. Security Surveillance System		3,000,000.00		
13. Finger Print Biometric		30,000.00		
14. Fire Suppression System		50,000.00		
15. VLAN Switch		300,000.00		
16. 80" LCD TV		800,000.00		
17. Surge Protector		50,000.00		
18. Firewall		800,000.00		
19. VOIP Telephones		300,000.00		
20. Network Cables and other Peripherals		100,000.00		





	<i>Office Productivity</i>	Upgrading of the Network Infrastructure and Fiber Line Connectivity of NBSC	Development of a School Management System and Learning Management System of NBSC	Enhancement of IT Laboratories, Simulation Labs and Offices of NBSC
21. Distribution Switches (Fixed configuration)				32,000.00
22. High End LCD Projectors (External Use)				300,000.00
23. DSLR Camera				100,000.00
24. CCTV				600,000.00
b. Printing Equipment				
1. Inkjet Printer (3-in-1)	780,000.00			
2. Digital Multifunctional Photocopiers	1,690,000.00			
3. High-end Printer (inkjet)		80,000.00		
4. I.D. Printer				150,000.00
5. RFID Printer				65,000.00
6. RFID Scanner				20,000.00
7. Tarpaulin Printer				250,000.00
c. ICT Software				
1. Licensed Operating System	3,000,000.00			
2. Office Productivity Software	1,700,000.00			
3. Bandwidth Manager		200,000.00		
4. DBMS-SQL Server		20,000.00		
5. Network Operating System (NOS)		50,000.00		
6. Licensed Operating Software – IT Laboratory Use				3,000,000.00
7. Office Productivity Software -Laboratory				1,700,000.00
8. Statistical Software				70,000.00
9. Designing Software				20,000.00





	<i>Office Productivity</i>	Upgrading of the Network Infrastructure and Fiber Line Connectivity of NBSC	Development of a School Management System and Learning Management System of NBSC	Enhancement of IT Laboratories, Simulation Labs and Offices of NBSC
10. GIS Software				20,000.00
11. Plagiarism Checker				1,000,000.00
12. Grammar Checker				200,000.00
13. Video Editing Software				12,000.00
14. Photo Editing Software				13,000.00
15. School Management System-ERP			6,000,000.00	
16. Learning Management System (LMS)			1,000,000.00	
17. E-Book Portal Subscription			3,500,000.00	
18. Follet Library System			1,650,000.00	
d. Infrastructure Outlay				
1. Fiber Optic Backbone w/ Optical Distribution Frame (ODF) incl Fiber Modem and Pigtail (Structured Cabling)		3,000,000.00		
2. Raised Floor for Data Server Room		500,000.00		
3. Security Doors for Data Server Room		50,000.00		
B. MOOE				
a. Professional Services				
1. Job Order (Network Specialist)		466,560.00		
2. Job Order (Computer Maintenance)		466,560.00		
3. Job Order (Website Admin)		233,280.00		
4. Job Order (System Admin)		233,280.00		
5. Job Order (Programmer)		466,560.00		
b. ICT Supplies				





	<i>Office Productivity</i>	Upgrading of the Network Infrastructure and Fiber Line Connectivity of NBSC	Development of a School Management System and Learning Management System of NBSC	Enhancement of IT Laboratories, Simulation Labs and Offices of NBSC
1. RJ45				20,000.00
2. Cables and other Peripherals				50,000.00
3. UTP Cable				20,000.00
c. Subscription Expenses				
Internet Subscription Expenses				
1. Leased Line (ISP)		4,000,000.00		
ICT Software Subscription				
1. Video Conferencing Subscription			100,000.00	
2. Anti-Virus			160,000.00	
3. Google Workspace Account			10,000.00	
4. Classroom Management Software			20,000.00	
d. Semi-Expendable Machinery and Equipment Expenses				
-ICT Equipment				
1. Hard disk				200,000.00
2. Solid State Disk				400,000.00
3. Random Access Memory (RAM)				250,000.00
4. LCD Monitor				160,000.00
5. Distribution Switches (Fixed Configuration)				80,000.00
6. Distribution Router				50,000.00
7. Keyboard				30,000.00
8. Mouse				30,000.00
9. Motherboard				400,000.00
10. Processor				600,000.00





	Office Productivity	Upgrading of the Network Infrastructure and Fiber Line Connectivity of NBSC	Development of a School Management System and Learning Management System of NBSC	Enhancement of IT Laboratories, Simulation Labs and Offices of NBSC
11. Heavy duty Vacuum Blower				20,000.00
12. Automatic Voltage Regulator				100,000.00
13. Video Card				400,000.00
14. Uninterruptable Power Supply (UPS)				800,000.00
15. Web Cam (HD 1080P)				400,000.00
16. Computer Headset				150,000.00
17. Power Supply (True Rated)				100,000.00
18. Computer Casing (Tower Case)				60,000.00
19. Wifi Adapter (Extender)				25,000.00
20. Computer Repair Tools/Equipment				100,000.00
21. Graphics/Pen Tablet				100,000.00
e. Other MOOE				
Website Maintenance				
1. Web and Domain Hosting and Maintenance		200,000.00		
TOTAL COST (B) 2022	26,820,000.00	20,486,240.00	12,440,000.00	12,097,000.00





D.3 2023 COST BREAKDOWN

	<i>Office Productivity</i>	Upgrading of the Network Infrastructure and Fiber Line Connectivity of NBSC	Development of a School Management System and Learning Management System of NBSC	Enhancement of IT Laboratories, Simulation Labs and Offices of NBSC
A. Capital Outlay				
a. ICT Equipment				
1. Branded Desktop PC Passmark 8681	4,500,000.00			
2. Laptop	1,680,000.00			
3. LCD Projectors	1,500,000.00			
4. High-End Desktop Computers		300,000.00		
5. Server Desktop PC		150,000.00		
6. Server		2,000,000.00		
7. Backup Power (UPS) 50KVA		130,000.00		
8. Cooling System		120,000.00		
9. Server Rack		50,000.00		
10. Ethernet Gigabit Switch		50,000.00		
11. Router (Modular)		60,000.00		
12. Security Surveillance System		3,000,000.00		
13. Finger Print Biometric		30,000.00		
14. Fire Suppression System		50,000.00		
15. VLAN Switch		300,000.00		
16. 80" LCD TV		400,000.00		
17. Surge Protector		50,000.00		
18. VOIP Telephones		100,000.00		
19. Network Cables and other Peripherals		100,000.00		





	<i>Office Productivity</i>	Upgrading of the Network Infrastructure and Fiber Line Connectivity of NBSC	Development of a School Management System and Learning Management System of NBSC	Enhancement of IT Laboratories, Simulation Labs and Offices of NBSC
20. Distribution Switches (Fixed configuration)				16,000.00
21. High End LCD Projectors (External Use)				150,000.00
22. DSLR Camera				50,000.00
23. CCTV				900,000.00
b. Printing Equipment				
1. Inkjet Printer (3-in-1)	360,000.00			
2. Digital Multifunctional Photocopiers	1,690,000.00			
3. High-end Printer (inkjet)		80,000.00		
4. I.D. Printer				75,000.00
5. RFID Printer				65,000.00
6. RFID Scanner				20,000.00
c. ICT Software				
1. Licensed Operating System	750,000.00			
2. Office Productivity Software	850,000.00			
3. Bandwidth Manager		200,000.00		
4. DBMS-SQL Server		20,000.00		
5. Network Operating System (NOS)		20,000.00		
6. Licensed Operating Software – IT Laboratory Use				750,000.00
7. Office Productivity Software -Laboratory				340,000.00
8. Statistical Software				70,000.00
9. Designing Software				20,000.00





	<i>Office Productivity</i>	Upgrading of the Network Infrastructure and Fiber Line Connectivity of NBSC	Development of a School Management System and Learning Management System of NBSC	Enhancement of IT Laboratories, Simulation Labs and Offices of NBSC
10. Video Editing Software				12,000.00
11. Photo Editing Software				13,000.00
12. School Management System-ERP			6,000,000.00	
13. Learning Management System (LMS)			0.00	
14. E-Book Portal Subscription			3,500,000.00	
15. Follet Library System			0.00	
d. Infrastructure Outlay				
1. Fiber Optic Backbone w/ Optical Distribution Frame (ODF) incl Fiber Modem and Pigtail (Structured Cabling)		3,000,000.00		
B. MOOE				
a. Professional Services				
1. Job Order (Network Specialist)		466,560.00		
2. Job Order (Computer Maintenance)		466,560.00		
3. Job Order (Website Admin)		233,280.00		
4. Job Order (System Admin)		233,280.00		
5. Job Order (Programmer)		466,560.00		
b. ICT Supplies				
1. RJ45				20,000.00
2. Cables and other Peripherals				50,000.00
3. UTP Cable				20,000.00
c. Subscription Expenses				
Internet Subscription Expenses				





	<i>Office Productivity</i>	Upgrading of the Network Infrastructure and Fiber Line Connectivity of NBSC	Development of a School Management System and Learning Management System of NBSC	Enhancement of IT Laboratories, Simulation Labs and Offices of NBSC
1. Leased Line (ISP)		4,000,000.00		
ICT Software Subscription Expenses				
1. Video Conferencing Subscription			100,000.00	
2. Anti-Virus			160,000.00	
3. Google Workspace Account			10,000.00	
4. Classroom Management Software			0.00	
d. Semi-Expendable Machinery and Equipment Expenses				
-ICT Equipment				
1. Hard disk				200,000.00
2. Solid State Disk				400,000.00
3. Random Access Memory (RAM)				250,000.00
4. LCD Monitor				160,000.00
5. Distribution Switches (Fixed Configuration)				80,000.00
6. Distribution Router				50,000.00
7. Keyboard				15,000.00
8. Mouse				15,000.00
9. Motherboard				160,000.00
10. Processor				240,000.00
11. Heavy duty Vacuum Blower				20,000.00
12. Automatic Voltage Regulator				25,000.00
13. Video Card				400,000.00
14. Uninterruptable Power Supply (UPS)				400,000.00
15. Web Cam (HD 1080P)				100,000.00





	<i>Office Productivity</i>	Upgrading of the Network Infrastructure and Fiber Line Connectivity of NBSC	Development of a School Management System and Learning Management System of NBSC	Enhancement of IT Laboratories, Simulation Labs and Offices of NBSC
16. Computer Headset				60,000.00
17. Power Supply (True Rated)				100,000.00
18. Computer Casing (Tower Case)				60,000.00
19. Wifi Adapter (Extender)				10,000.00
20. Computer Repair Tools/Equipment				100,000.00
21. Graphics/Pen Tablet				100,000.00
e. Other MOOE				
Website Maintenance				
1. Web and Domain Hosting and Maintenance		200,000.00		
TOTAL COST (C) 2023	11,330,000.00	16,276,240.00	9,770,000.00	5,516,000.00
GRAND TOTAL COST (A+B+C)	47,650,000.00	36,762,480.00	22,210,000.00	17,613,000.00





ANNEX A-5: EXISTING INFORMATION & COMMUNICATIONS TECHNOLOGY (ICT) INFRASTRUCTURE INVENTORY

AGENCY NAME: NORTHERN BUKIDNON STATE COLLEGE
Respondent (IS Planner/CIO/MIS Head)1: BENZAR GLEN GREPON
Position / Désignation: MIS DIRECTOR
Division/Section/Unit: MANAGEMENT INFORMATION SYSTEM
Telephone/Fax Number: 09064324127
Respondent's Email Address: ben.it2c@gmail.com



Objectives:

- To identify the hardware, software, network and other ICT resources being used to manage information by National Government Agencies (NGAs), Government-owned and Controlled Corporations (GOCCs), State Colleges and Universities (SUCs), and Constitutional and Financial Autonomous Group (CFAG);
To update existing benchmark and standards; and
To provide inputs to the MITHI Steering Committee in determining the ICT budget requirements of the agency.

1. HARDWARE / OTHER ICT EQUIPMENT

Fill-out Instruction:

- Please count all existing computing devices and peripherals owned or leased by your office that are functioning including those acquired through projects. In case of multi-year contract for leased units, then just write the number of units under the appropriate year when the leased units were acquired. Do not include in succeeding years unless another batch was leased. Reference year is last year. Kindly replace "last year" and preceding years by the actual year number. For example, if last year is 2013, then write 2013 under the 1st column. For last 2 years, write 2012 and for last 3 years, write 2011.

1.1 Number of Computing Devices and Peripherals by Type and by Year Acquired

Table with 8 columns: TYPES, 2020 (Owned, Leased), 2019 (Owned, Leased), 2018 (Owned, Leased), and More than 3 years. Rows include Mainframe, Servers, Desktop PC, Laptop / Notebook / Netbook PC, Mobile Phone, Tablet PC, Multi-function printer, Printer only, Digital Camera, Wide-format Printer or Plotter, Small Scanner, Smart Card Reader, Wide-format Scanner, External Hard Drive, Generator Set, and Others.

1 In case all three positions are occupied by different persons, then the IS Planner should have priority in answering this survey.

2 Count only the mobile phones owned or leased by your agency.



1.2 Number of Computing Devices and Peripherals by Usage

TYPES	Operations			General Administration and Support Services Support to Operations ³	Projects (Not agency-funded)
	Employees	Training	Frontline Services ⁴		
Servers	0	0	N/A	H/A	N/A
Desktop PC	20	0	N/A	N/A	N/A
Laptop / Notebook / Netbook PC	1	0	N/A	N/A	N/A
Multi-function printer (print, copy, etc.)	20	0	N/A	N/A	N/A
Printer only	10	0	N/A	N/A	N/A

1.3 Number of Servers by Capacity and by Location

TOTAL CAPACITY OF HDD	LOCATION	
	IN-HOUSE	CO-LOCATED
Above 4 TB	0	0
2 TB to 4 TB	0	0
Below 2TB	0	0

2. SOFTWARE, APPLICATION SYSTEMS, INFORMATION SYSTEMS AND DATABASES

2.1 Operating Systems

2.1.1 OS for Stand-alone PCs (desktops and laptops)

OPERATING SYSTEM	Lifetime License? ⁵	If not, write below the year of expiration
Older than Windows XP	<input checked="" type="checkbox"/>	N/A
Windows XP	<input checked="" type="checkbox"/>	N/A
Windows Vista	<input checked="" type="checkbox"/>	N/A
Windows 7	<input checked="" type="checkbox"/>	N/A
Windows 8 and up	<input checked="" type="checkbox"/>	N/A
Linux	<input checked="" type="checkbox"/>	Open source
Mac OS	<input checked="" type="checkbox"/>	N/A
Mac OS X	<input checked="" type="checkbox"/>	N/A
Others, please specify (continue on a separate sheet if necessary)	<input checked="" type="checkbox"/>	N/A



2.1.2 OS for Workstations (desktops and laptops)

OPERATING SYSTEM	Lifetime License?	If not, write below the year of expiration
Older than Windows XP	<input checked="" type="checkbox"/>	N/A
Windows NT	<input checked="" type="checkbox"/>	N/A
Windows XP	<input checked="" type="checkbox"/>	N/A
Windows Vista	<input checked="" type="checkbox"/>	N/A
Windows 7	<input checked="" type="checkbox"/>	N/A
Windows 8 and up	<input checked="" type="checkbox"/>	N/A
Solaris	<input checked="" type="checkbox"/>	N/A
Linux	<input checked="" type="checkbox"/>	Open source
Mac OS	<input checked="" type="checkbox"/>	N/A
Others, please specify (continue on a separate sheet if necessary)	Use of open source	

³ Those used in planning, coordination, internal training, monitoring and evaluation

⁴ Those used by external clients

⁵ Mark if yes. Examples are OEM license (software is already installed in the hardware) and Enterprise (Perpetual) license, which does not require renewal and is for life long. (source: <http://www.manageengine.com/products/service-desk/help/adminguide/configurations/software/software-license-type.html>)



2.1.3 OS for Servers

OPERATING SYSTEM	Lifetime License?	If not, write below the year of expiration
Windows NT	<input checked="" type="checkbox"/>	N/A
Windows 2000	<input checked="" type="checkbox"/>	N/A
Windows Server 2003	<input checked="" type="checkbox"/>	N/A
Windows Server 2008	<input checked="" type="checkbox"/>	N/A
Windows Server 2012	<input checked="" type="checkbox"/>	N/A
Solaris	<input checked="" type="checkbox"/>	N/A
OpenSolaris	<input checked="" type="checkbox"/>	N/A
OS/2	<input checked="" type="checkbox"/>	N/A
Linux	<input checked="" type="checkbox"/>	N/A
Mac OS X Server	<input checked="" type="checkbox"/>	N/A
Others, please specify (continue on a separate sheet if necessary)		No server as of the moment.

2.2 Office Automation Software

SOFTWARE / APPLICATION PACKAGE	Lifetime License?	If not, write below the year of expiration
Older than MS Office 2003	<input checked="" type="checkbox"/>	N/A
MS Office 2003	<input checked="" type="checkbox"/>	N/A
MS Office XP	<input checked="" type="checkbox"/>	N/A
MS Office 2007	<input checked="" type="checkbox"/>	N/A
MS Office 2010	<input checked="" type="checkbox"/>	N/A
MS Visio	<input checked="" type="checkbox"/>	N/A
MS Project	<input checked="" type="checkbox"/>	N/A
Open Project	<input checked="" type="checkbox"/>	Open source
Open Office	<input checked="" type="checkbox"/>	Open source
Others, please specify (continue on a separate sheet if necessary)		Use of open source programs only



2.3 Operational⁶ Oversight / Administrative Systems (please refer to the examples⁷ below).

NAME OF SYSTEM (Please list down the name/s of your administrative system/s)	Own Intellectual Property, Y or N? ⁸	DEVELOPMENT PLATFORM (ex. LAMP, .NET, Java)	WORKING ENVIRONMENT ⁹ (Use codes below)	MAINTENANCE COST	USE ¹⁰ (Pls. write codes only; refer below)
NBCC - SMS	Y	Java	C	None	4
NBCC - SMS-online	Y	PHP	W	None	4
NBCC - Grading Portal	Y	PHP	W	None	4
Library System	Y	PHP	W	None	4
(please continue on a separate sheet if necessary)					

⁶ Include only those currently being used by your office or agency.

⁷ Payroll System, 201 File Information and Promotion System, Vehicle Monitoring System, Document Tracking System, Attendance and Leave Monitoring System, Financial Management Information System, Inventory System, Records Management System

⁸ Write Y for Yes if your agency has intellectual property right to the system. Write N for No.

⁹ WORKING ENVIRONMENT: S - Stand alone; C - Client-Server; W - Web-based

¹⁰ USE: 1 - Public Financial Management; 2 - Citizen Frontline Services; 3 - Ease of Doing Business; 4 - Higher Education; 5 - Basic Education; 6 - Health; 7 - Justice, Peace and Order; 8 - Energy; 9 - Land and Other Geospatial Information; 10 - Disaster and Climate Change Management; 11 - Public Works and Transport; 12 - iGov and ICT Infrastructure; 13 - Transparency and Citizen's Participation; 14 - Citizen Registry; 15 - Others, please specify.



2.4 Operational¹¹ Strategic Information Systems (please refer to the examples¹² below).

Table with 6 columns: NAME OF SYSTEM, Own Intellectual Property, DEVELOPMENT PLATFORM, WORKING ENVIRONMENT, MAINTENANCE COST, USE. Rows include Admissim System and Evaluation System.

2.5 Databases (please include only existing databases)

Table with 6 columns: NAME OF DATABASE, Own Intellectual Property, BRIEF DESCRIPTION AND KEY FIELDS, DATABASE MANAGEMENT SOFTWARE USED, MAINTENANCE COST, USE. Row includes NBCC SMS (MySQL).



3. NETWORK

- 3.1 Does your agency have a Local Area Network (LAN)?
3.2 Does your agency have an Intranet?
3.3 If yes, does your agency have a Virtual Private Network (VPN)?
3.4 Does your agency have a Wide Area Network (WAN)?
3.5 Does your agency have a Private Automatic Branch Exchange (PABX or PBX)?
3.6 If yes, what is the PBX set up?
3.7 Is your agency connected to the Internet?
3.8 What is/are your agency's mode/s of access to the Internet?
3.9 Who is (are) your Internet Service Provider(s)?

PLDT

11 Include only those currently being used by your office or agency.
12 eCensus, Electronic Filing and Payment System, eTIN, Government e-Procurement System, Automated Customs Operations System, Electronic Customs Clearance Facility, Licensure Examination & Registration Integrated System, Machine Readable Passports and Visas, Philippine Land Registration and Information System, Government Employees Management Information System, e-GSIS, eReal Property Tax System, Business Permit & License System, iRegister, Hospital Operations and Management Information System
13 Write Y for Yes if your agency has intellectual property right to the database. Write N for No.
14 WORKING ENVIRONMENT: S - Stand alone; C - Client-Server; W - Web-based
15 USE: 1 - Public Financial Management; 2 - Citizen Frontline Services; 3 - Ease of Doing Business; 4 - Higher Education; 5 - Basic Education; 6 - Health; 7 - Justice, Peace and Order; 8 - Energy; 9 - Land and Other Geospatial Information; 10 - Disaster and Climate Change Management; 11 - Public Works and Transport; 12 - iGov and ICT Infrastructure; 13 - Transparency and Citizen's Participation; 14 - Citizen Registry; 15 - Others, please specify.
16 Briefly describe the purpose or importance of the database.
17 Examples of DBMS are MS Excel, MS Access, MS SQL Server, MySQL, IBM's DB2, Oracle SQL, Sybase SQL, Informix, FoxPro



- 3.10 What is the combined internet bandwidth (voice and data)? 30 Mbps
- 3.11 How many employees have access to the Internet in the office? 50
- 3.12 How many employees have their own official e-mail address? 60
- 3.13 Does your agency have a web site? YES NO
- 3.14 If YES, what is the URL of your agency's web site? http:// nbsc.ph

4. SECURITY, DISASTER RECOVERY & BACK-UP

- 4.1 Does your agency have a protection scheme for your ICT resources? YES NO
- 4.2 If YES, what is/are the measure/s being used by your office? (Check all applicable)

<input type="checkbox"/> Security Policy / Guideline	<input type="checkbox"/> Disaster Recovery Plan
<input checked="" type="checkbox"/> Back-up power unit (e.g. UPS, Generator)	<input type="checkbox"/> Digital signatures
<input type="checkbox"/> Encryption	<input type="checkbox"/> Off-site back-up
<input type="checkbox"/> Hardware firewall	<input type="checkbox"/> Physically restricted access to critical ICT equipment
<input type="checkbox"/> Software firewall	<input type="checkbox"/> Secure servers
<input type="checkbox"/> Subscription to a security service (e.g. anti-virus software, intrusion alert)	<input checked="" type="checkbox"/> Storage of back-up media in localities other than the operating environment
<input type="checkbox"/> Regular ICT security training of employees	<input type="checkbox"/> Others, please specify _____

5. DATA ARCHIVING

- 5.1 Does your agency have a data archiving system? YES NO
- 5.2 If yes, what type of data archiving system does your agency use?

<input type="checkbox"/> Manual	<input type="checkbox"/> Electronic	<input checked="" type="checkbox"/> Both/Combination
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- 5.3 If electronic data archiving is being utilized, what is the mode?

<input checked="" type="checkbox"/> Conventional	<input type="checkbox"/> Cloud
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- 5.4 If conventional mode, what is the medium of storage of the archived data?

<input type="checkbox"/> Optical disks (e.g. CD-Rom, DVD)	<input checked="" type="checkbox"/> Hard Disk
<input type="checkbox"/> Tape	<input checked="" type="checkbox"/> External Hard Drive
<input type="checkbox"/> Microfiche	<input type="checkbox"/> Diskette
<input type="checkbox"/> Others, please specify _____	
- 5.5 What information is archived by your agency electronically? (Check all items that are applicable)

<input checked="" type="checkbox"/> Publications (Annual Report, Statistical Report, etc.)	<input checked="" type="checkbox"/> Letters, memorandum orders, communications, etc.
<input type="checkbox"/> Audio-visual recordings	<input checked="" type="checkbox"/> Unprocessed/Raw Data
<input type="checkbox"/> Maps	<input type="checkbox"/> Photographs
<input checked="" type="checkbox"/> Public documents (civil registration forms, passports, land titles, etc.)	<input type="checkbox"/> Others, please specify _____



6. SPECIAL SOLUTIONS AND OTHER SERVICES

SPECIAL SOLUTIONS PACKAGE	USE ¹⁸ (Pls. write codes only; refer below)	MAINTENANCE COST
Geographic Information System	N/A	N/A
Automated Fingerprint Identification System	4	1,000 quarterly
Cloud computing	N/A	N/A
CCTV System	N/A	N/A
Others, please specify		

7. DATA CENTER

N/A

¹⁸ USE: 1 – Public Financial Management; 2 – Citizen Frontline Services; 3 – Ease of Doing Business; 4 – Higher Education; 5 – Basic Education; 6 - Health; 7 – Justice, Peace and Order; 8 – Energy; 9 – Land and Other Geospatial Information; 10 – Disaster and Climate Change Management; 11 – Public Works and Transport; 12 – iGov and ICT Infrastructure; 13 – Transparency and Citizen’s Participation; 14 – Citizen Registry; 15 – Others, please specify.



- 7.1 Does your agency have a data center? YES NO
- 7.2 If yes, how many sites? _____
- 7.3 Please check applicable maintenance set-up: In-house Outsourced
- 7.4 Does it have a back-up site? YES NO

8. ICT PROJECTS

8.1 Details of Ongoing ICT Projects

PROJECT NAME ¹⁹	DESCRIPTION	PERIOD (in mm/dd/yyyy)		COST ²⁰ (in pesos)	DEVELOPMENT STRATEGY ²¹ (Please write codes only; refer below)	STATUS ²² (Please write codes only; refer below)	USE ²³ (Pls. write codes only; refer below)
		Start Date	End Date				
School LMS	Learning Management System	01/2021	12/2021	N/A	I	U	4

8.2 Issues Encountered in the Implementation of ICT Projects

- No budget or insufficient budget
- Opposition or reluctance of stakeholders
- Difficulty in recruiting and/or retaining qualified ICT personnel
- Unavailability of required bandwidth to support system/s
- Problems in contract management for outsourced services
- Others, _____ please specify _____
- Delay in the release of projects funds
- Lack of support by management
- Low level of ICT skills among employees
- Not used or seldom used by intended users and/or clients
- Problems in procurement

Please send accomplished questionnaire to:

MEDIUM-TERM INFORMATION AND COMMUNICATION TECHNOLOGY HARMONIZATION INITIATIVE (MITHI)
 Department of Information and Communications Technology (DICT)
 Carlos P. Garcia Ave., UP Diliman, Quezon City 1101
 or email soft copy to secretariat@mithi.gov.ph

Call 920-7421 or 920-01-01 loc. 3912, 3901 for assistance.

Thank you for participating in the MITHI ICT Resources Inventory



Definition of Terms:

¹⁹ **PROJECT NAME:** In case an ICT project is divided in phases and its budget is given by phases, kindly list each phase as a separate project tagged as <Project Name> Ph. 1, <Project Name> Ph. 2, and so on.

²⁰ **COST:** For ICT projects and project phases that ended in 2013 or earlier, kindly provide the **actual cost** in pesos and not the proposed cost.

²¹ **DEVELOPMENT STRATEGY:** I – In-house; O – Outsourced; C – Combination

²² **STATUS:** U – Under Development; D – For Deployment; O – Operational

²³ **USE:** 1 – Public Financial Management; 2 – Citizen Frontline Services; 3 – Ease of Doing Business; 4 – Higher Education; 5 – Basic Education; 6 - Health; 7 – Justice, Peace and Order; 8 – Energy; 9 – Land and Other Geospatial Information; 10 – Disaster and Climate Change Management; 11 – Public Works and Transport; 12 – iGov and ICT Infrastructure; 13 – Transparency and Citizen’s Participation; 14 – Citizen Registry; 15 – Others, please specify.