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REPORT ON THE PASB INFORMATION TECHNOLOGY STRATEGY

Introduction

1. Pursuant to instructions from the Director of the Pan American Sanitary Bureau (PASB), in 2014 PASB conducted an information technology (IT) assessment that recommended that the Bureau develop an Information Technology Strategy. This report presents a draft Information Technology Strategy for PASB.

Background

2. The development of this new PASB IT Strategy is based on several major IT developments: *a)* the results of a June 2014 IT assessment; *b)* the impending introduction of the PASB Management Information System (PMIS); *c)* anticipation of an unusually high turnover of IT personnel (at least 60% in the next five years) in the Information Technology Services Department; and *d)* growing demands from technical areas for improvements in the current state of information technology in the Bureau.

3. This document outlines the general strategic goals and specific steps necessary to meet those goals. It also describes a framework for viewing and evaluating the resource levels that PASB allocates to IT, how to determine those levels, and what services PASB should expect to obtain from that investment.

Situation Analysis

4. *Strategic context.* Information technology is an enabling function that supports the mission of PAHO. It provides the tools, infrastructure, and services to facilitate collaboration; accounting and financial management, planning, monitoring, and assessment; results-based management; communications; information security; mobile computing; and knowledge sharing.

5. *Current focus.* Information technology in PASB is currently focused on basic enabling functions throughout the Bureau such as systems for administration (e.g., finance, procurement, human resources) and general office services for the

countries and Headquarters, including telecommunications (e-mail, telephones, Internet), infrastructure (servers, desktop computers), and software tools (among them Microsoft Word and Excel). In the current biennium, the PASB Management Information System (PMIS) is replacing most administrative information systems, and substantial resources are necessary to deploy and stabilize the new systems.

6. *Opportunities.* Significant opportunities are available to expand IT services in direct support of technical programs. However, additional resources (especially human resources) will have to be allocated to information technology beyond the minimum necessary to sustain basic enabling services. Failure to provide these additional resources will hinder PASB's ability to meet Member States' expectation of a steady stream of additional value added to support technical cooperation.

7. *IT management framework.* Given the limited resources available, this IT Strategy outlines a mechanism for determining how much should be spent on IT in various categories and balancing available resources across the entire IT portfolio. Balance requires prioritizing IT activities across two major dimensions: key subject areas and categories of work (as described subsequently).

8. *IT funding.* As a context for assessing how much PASB should spend on IT, this strategy references a benchmark for total IT spending. A PASB IT assessment completed in June 2014 recommended that the Bureau allocate 5.5% of its total budget to IT (about \$31 million¹ per biennium). In the 2012-2013 biennium, the Bureau spent about 3% (roughly \$17 million). In the 2014-2015 biennium, the Bureau projects spending 4.4% (roughly \$25 million) on IT operations. This level of funding confined the use of IT resources to sustaining basic enabling products and services. In the 2014-2015 biennium, PASB is also allocating an additional \$22.5 million in one-time project costs to fund development and implementation of the PMIS in order to replace its obsolete core administrative systems. Sustaining the PMIS in future biennia will require a net increment in funding for basic enabling IT services.

9. *IT human resources.* Nearly two-thirds of the new activities needed to meet the goals of this strategy require increments in human resource services rather than purchases of goods and services. Shifting the level of IT service delivery in PASB from a predominantly enabling function to one that can deliver more direct value to technical cooperation will therefore require a revised IT human resources plan.

Proposal

10. During the 53rd Directing Council of PAHO, the Director stated that an IT Strategy was to be developed for PASB. The goal of this strategy, which will involve a phased approach, is to ensure that the Bureau functions with an optimum level of

¹ Unless otherwise indicated, all monetary figures in this report are expressed in United States dollars.

information technology support. The IT Strategy forms the basis for this plan for the next five-year period, 2015-2019.

Core Principles

11. Five core principles guide this strategy and its implementation and will help ensure realization of the IT vision:

- a) *Serve the mission of PAHO.* All IT services and infrastructure will be designed and made available to support the Organization's mission.
- b) *Maintain a strong IT foundation.* A strong information technology foundation of reliable services and infrastructure will be available to facilitate the achievement of PAHO goals.
- c) *Optimize the use of IT resources.* Processes will be created to identify benefits and prioritize activities to ensure that all IT expenditures fit within funding constraints. Cost-benefit analyses will be conducted for all major IT investments.
- d) *Plan for incremental results.* Larger projects will be broken down into smaller elements during the implementation phase to facilitate measurement of progress and ensure delivery of results.
- e) *Balance IT resource allocation through IT governance.* The IT governance structure will help prioritize major IT tasks and activities to ensure an appropriate balancing of resources.

General Goal

12. The purpose of the Information Technology Strategy is to offer optimal IT support for technical programs and the country offices. It will provide IT direction that will continuously improve the reliability, quality, and financial value of PAHO's IT support services and guarantee a strong, sustainable, and continuously upgraded IT infrastructure. The strategy is essential for meeting regional health objectives as it will allow for enhanced delivery of technical cooperation, simplify processes, and boost organizational efficiency.

Strategic Lines of Action

13. The IT Strategy establishes a framework for dividing IT activities and spending into three major categories: run, grow, and transform. **Run** represents regular IT operations, **Grow** refers to increasing the IT capacity to accommodate the growing needs of the Organization, and **Transform** represents innovations that can substantially improve the way PASB delivers technical cooperation and conducts its business. These categories are used to organize and balance IT activities, spending, and investment. Organizations should not spend all of their IT resources on maintaining the status quo, nor should they sacrifice a firm IT foundation in the pursuit of transformational activities,

no matter how great the promise. The strategy recommends a ratio of resources that should be allocated to each of the three categories (65%, 20%, and 15%, respectively).

14. The IT Strategy framework can be summarized as a method for placing all IT activities into an overall context and developing a logical way to prioritize and budget for those activities. In the process, the framework can show how much is currently being spent on IT and what that investment yields. It also guides decision making on how much should be spent, what the Bureau obtains from those expenditures, and how these expenditures and corresponding benefits will impact the Organization as a whole.

15. In the past, information technology made it possible to improve how technical cooperation is delivered in the Region. New opportunities now exist, including support for improving data analysis capabilities and developing information systems in technical programs, as well as direct support to the Public Health Information Platform. The strategy framework ensures that appropriate information technology resources are allocated to this critical area.

16. The PMIS has a major impact on the structure and allocation of IT spending in PASB. Annual expenditures on the PMIS during its two-year project implementation period are roughly equal to each of the total IT budgets of recent bienniums. This is typical of a transformational project. During the project implementation period, most of the PMIS budget is in the *Transform* and *Grow* categories. After completion of the PMIS project, when PMIS systems become part of normal IT operations, the distribution of PMIS spending will shift to a more typical pattern of 65% Run (e.g., software licenses), 20% Grow (e.g. system enhancements) and 15% Transform (new functionalities).

17. IT governance plays a key role in helping to achieve a balance between the *Run*, *Grow*, and *Transform* categories and available funding. The IT Governance Committee reviews the entire IT activities portfolio and steers the balance of resource allocations in two dimensions: the five major themes of the IT Strategy and the run-grow-transform categories. The Governance Committee's primary tool is prioritization of themes and activities.

18. Sustainability is an important aspect of IT operations to ensure that appropriate services and service quality are in place when needed. This has a major impact on how IT is funded. As historically structured in PASB, information technology has periodically required large purchases of equipment with a finite life—in line with a capital expenditure model (CAPEX). While this type of model provides flexibility when a modernization purchase is needed, it obscures the necessity of planning or reserving resources in advance of that need. An alternate operational expense model (OPEX) would distribute IT spending across regular, predictable recurring payments. Such a model can be implemented through greater outsourcing of IT equipment and services (e.g., leveraging cloud services). The IT Governance Committee will monitor the appropriate CAPEX and OPEX mix based on comparative cost-benefit analyses of the full cost of systems ownership under the two models.

19. In 2014 PASB reported planned activities in the Information Technology Subfund for the period 2012-2021, projecting approximately \$3.5 million in expenditures per biennium.² However, due to the lack of funding, actual expenditure in 2013 was only \$1,340,948 and in 2014, there were no expenditures. The IT Strategy is a refocused, holistic approach enabling PASB to plan and track all IT investments funded in all Strategic Plan categories and all PASB entities, regardless of funding source. The strategy envisages continuing to leverage the Master Capital Investment Fund's Information Technology Subfund as one source of financing, subject to availability.

20. Annex A provides a budget projection for this IT strategy, broken down by technology areas across the IT portfolio, including 2016-2017 funding requirements for PMIS and IT human resource needs.

21. The IT Strategy's risk management actions include involving management and the IT Governance Committee in the preparation and execution of the strategy.

22. Further information and details regarding the IT Strategy, including graphic representation of the content, can be found at the [PASB Information Technology Strategy](#).

Financing

23. Document CE156/21, Proposal for the Use of the Balance of the IPSAS and Budgetary Surpluses recommends allocation of \$2 million to the Information Technology Subfund to provide support for the implementation of this strategy as follows:

- a) Grow:
 - i. Start-up and first-year operations of redundant ("back-up") Internet service providers (ISPs) for all country offices and centers to ensure enhancement of Internet connectivity quality and full benefits from the PMIS project implementation: \$900,000. In subsequent biennia, annual maintenance costs for the ISPs will be included in the Program and Budget administrative costs.
 - ii. Launch of managed firewall and Internet load balancing services to ensure protection from evolving cyber-security threats and to protect the availability of Internet bandwidth for official business: \$550,000.
- b) Transform:

Start up of outsourced cloud-based email management services during the current biennium: \$550,000. In future biennia, these services will replace services currently provided by staff.

² Document SPBA8/8 (Master Capital Investment Plan: Periodic Report on the Implementation of the MCIP), Annex C.

24. Annex B of the present document situates this funding proposal in the context of the different funding requirements and proposed sources of funds presented to the Committee during its 156th session.

Action by the Executive Committee

25. The Committee is invited to take note of this report and formulate the recommendations it deems pertinent.

Annexes

Annex A

PAHO Information Technology Portfolio - Subject Areas and Categories of Work

Categories	Description (Includes)	2012-2013 Totals	2014-2015 Projected Totals	2016-2017 Projected Totals
Applications - Developers	Consultant/contractor costs for application development	\$1,345,355	\$2,888,620	\$1,300,000
Applications - Licenses	Microsoft, collaboration tools	\$624,852 *	\$1,651,693	\$1,300,000
Country Offices - Hardware	Servers, backup, desktops	\$427,793 *	\$806,761	\$900,000
Country Offices - Telecommunications	Network, Internet Service Providers (ISPs)	\$1,474,246	\$1,851,185 *	\$1,800,000
Headquarters - User Hardware	Desktops, peripherals	\$275,879 *	\$717,114	\$600,000
End User Support	Service Desk, IT Service Management Suite	\$598,601	\$651,635	\$900,000
Infrastructure - Data Center	Servers, backup, network equipment, disaster recovery	\$299,514	\$1,777,689 *	\$1,900,000
Infrastructure - Licenses, Maintenance	Security, network management, compliance	\$1,256,871	\$1,652,886	\$2,500,000
Infrastructure - Mainframe	Supporting SHI, FAMIS, ADPICS, ¹ et al.	\$1,045,494	\$1,250,614	\$320,000
Infrastructure - Services	Specialized assistance	\$812,328	\$839,361 *	\$1,000,000
Infrastructure - Telecommunications	Network, ISP, telephone, mobile, wireless	\$458,343	\$746,456	\$900,000
Management Costs	Training, duty travel, clerical support	\$254,324	\$40,499	\$45,000
PMIS Support	Software licenses, integrations and post go-live support		\$357,128	\$1,632,384
SUB TOTAL		\$8,873,602	\$14,631,641	\$15,097,384

PAHO Information Technology Human Resource Costs

Purpose	2012-2013 Totals	2014-2015 Projected Totals	2016-2017 Projected Totals
Management	\$907,494	\$1,008,000	\$1,800,000
Applications	\$2,834,509	\$3,480,000	\$3,108,000
Infrastructure	\$1,711,783	\$1,800,000	\$2,172,000
End User Support	\$693,375	\$768,000	\$1,056,000
PMIS Shared Services Support	\$0	\$432,000	\$2,232,000
Information Security	\$0	\$216,000	\$432,000
Country office Systems Support	\$2,685,000	\$2,700,000	\$3,132,000
SUBTOTAL	\$8,832,161	\$10,404,000	\$13,932,000
TOTAL	\$17,705,763	\$25,035,641	\$29,029,384

¹ Staff health insurance; financial accounting and purchasing management information systems.

* Includes projects from the MCIF IT Subfund

Annex B

Funding Requirements and Proposed Sources of Funds

Fund	Funding Status	Funding Requirements	Proposed Source(s) of Funding	Funding Proposed
Master Capital Investment Fund (MCIF) – Information Technology (IT) Subfund	MCIF is primarily funded through the appropriation of budgetary surpluses. The available balance in the IT Subfund as of 31 December 2014 was US\$ 306,849. ¹	PASB's Report on the IT Strategy (Document CE156/26) indicates that the Bureau requires significant additional investment in IT infrastructure and support.	IPSAS surplus	\$2,000,000
Human Resources Strategy reserve	This is a new funding recommendation.	PASB's Report on the Development of the Human Resources Strategy (Document CE156/31) indicates that one-time funding will be required to achieve the recommended transformation.	Unallocated IPSAS surplus (\$281,684) and unallocated budgetary surplus (\$773,494)	\$1,055,178
MCIF – Real Estate Maintenance and Improvement Subfund	The balance of this existing MCIF Subfund as of 31 December 2014 was \$1,804,810.	The Report on the Master Capital Investment Fund (Document CE156/24) sets forth the results of a Region-wide assessment of PAHO-owned real estate, identifying approximately \$2 million of needed major repairs to country office buildings per biennium for the coming decade.	Revenue surplus	\$2,000,000
MCIF – Vehicle Replacement Subfund	The balance of this existing MCIF Subfund as of 31 December 2014 was \$378,520.	The Vehicle Replacement Subfund lacks sufficient resources to launch a Region-wide, self-financing vehicle replacement program needed for country office operations.	Revenue surplus	\$1,000,000

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Funding Requirements and Proposed Sources of Funds (cont.)

Fund	Funding Status	Funding Requirements	Proposed Source(s) of Funding	Funding Proposed
Epidemic Emergency Fund - special reserve for infectious disease response	The balance of this existing fund is \$464,550.	Additional funds are required to ensure that PASB can advance funds so that Member States can procure needed supplies to respond to Ebola and other emergent outbreaks.	Revenue surplus	\$1,000,000
Revolving Fund for Strategic Public Health Supplies - capitalization	The capitalization balance stood at \$7.6 million as of 31 December 2014, less outstanding advances of \$1.6 million, for an available cash balance of \$6.0 million.	The trend toward increasing utilization of the Strategic Fund by Member States requires strengthening of the capitalization level.	Revenue surplus	\$1,000,000
TOTAL proposed for allocation				\$8,055,178
AVAILABLE SOURCES				
		Unappropriated IPSAS surplus		\$2,281,684
		Unappropriated budgetary surplus		\$773,494
		Revenue surplus		\$5,090,037
TOTAL AVAILABLE SOURCES				\$8,145,215
REMAINING UNALLOCATED AMOUNT				\$90,037
