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CAP-HAÏTIEN PORT REGULATORY STRENGTHENING PROJECT REGULATORY INFORMATION SYSTEM REVIEW

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CAP-HAÏTIEN PORT REGULATORY STRENGTHENING PROJECT REGULATORY INFORMATION SYSTEM REVIEW

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ACRONYMS

APN	Autorité Portuaire Nationale (National Port Authority)
CHP	Cap Haïtien Port
MIS	Management Information System
PPP	Public-Private Partnership
RIS	Regulatory Information System
USAID	US Agency for International Development

I. INTRODUCTION

The Government of Haiti (GOH) and USAID agreed to implement the Cap-Haitian Port (CHP) Rehabilitation and PPP project (CHP Project), which will result in improvements to the infrastructure at CHP, significant regulatory reforms to GOH agencies involved in operations at CHP, and the execution of a contract to a private terminal operator through a PPP transaction.

Reform of the regulatory environment at CHP is a key element of the overall CHP Project and is critical to its success. The CHP Project provides technical assistance to APN to assist its staff at CHP in making the shift away from direct involvement in operations toward one that is primarily focused on port sector planning, administration and regulation through the concurrent process of rehabilitation, bidding and operation by a new terminal operator.

To support APN's execution of its regulatory functions, USAID is supporting the development of a set of regulatory tools; these include:

1. Port Performance Monitoring Tool
2. Port Authority Tariff Analysis Tool
3. Port Service Contracts Tool
4. Port Operational Regulations Tool

These individual regulatory tools and the data needed to apply them together form the Regulatory Information System needed for APN to conduct the related regulatory activities. Hosting the tools and data on a centralized collaboration platform will facilitate data sharing and ease of access for using the tools while limiting access to relevant parties.

Section 2 of the report outlines the Regulatory Information System requirements relative to APN's regulatory functions, while Section 3 addresses the suggested approach for establishing the centralized platform to host the tools.

2. REQUIREMENTS

The four regulatory functions listed above require improved data and information sharing between APN staff in Port au Prince and Cap Haitien and other local port offices. Self-contained Excel tools have been developed for the Port Performance Monitoring Tool and the Port Authority Tariff Analysis Tool. The Port Service Contracts Tool and the Port Operational Regulations Tool formats relate to management of Word documents and templates.

The four needs are outlined below.

1. MONITORING PORT SERVICES PERFORMANCE

The Port Performance Monitoring Tool requires data reported from Cap Haitien and other ports to enable APN to monitor their performance; monitoring is not only required for service quality assurance purposes and to trigger APN intervention where quality does not measure up, but also for inputs into the port planning process to determine capacity expansion needs, benchmarking to gauge competitiveness relative to rival ports and global standards, and to detect shifts and trends in operational performance from one year to the next. Port planners, operations supervisors, and management will need the ability to receive timely input data and to access the tool on a restricted basis.

Several operational indicators are to be used to monitor port services performance at Cap Haitien and other APN ports. Weekly, monthly, or quarterly operational data, coming from vessel operations and other reports, will be generated and provided by the terminal operator's terminal operating system (TOS) to local port representatives. Periodic data sets, even if collected and used over a period of many years, will not strain the prescribed server's ITB storage capacity (see Appendix C for server specifications). The data may be provided in hard or soft copy reports, but ideally will be reported in an Excel/CSV format. APN staff in Cap Haitien may also collect raw performance-related data for non-containerized cargo handling operations outside the confines of the container terminal operator. Data files then need to be conveyed to APN in Port au Prince for processing and reporting at which point it will be imported into an Excel Reporting tool and processed for presentation. This tool will be self-contained and will include a user instruction manual which will cover input data requirements and format. APN management, planning, operations, and accounting personnel will need to access the Tool.

2. PORT TARIFF ANALYSIS

The port authority Tariff Analysis Tool will enable APN to gauge the impact of proposed adjustments to port service requirements and visualize the impact on financial performance; the Tool will also enable APN to assess APN port competitiveness by adjusting APN tariffs and charges to reflect those of rival or benchmark ports and gauge the effects on APN financial flows. Port management, finance, accounting, and marketing personnel will need to access this Tool in the course of their functional responsibilities. The Tool needs to be updated on a periodic basis relative to revisions in tariff charges and possibly the basis on which they are calculated and applied.

APN will use an Excel Spreadsheet tool that models the effect of changes in charges on future revenue flows. The tool needs to be stored in a centralized location with access restricted to authorized users, and version control to allow iterations of the tool to be stored and retrieved. As with the Port Performance Monitoring Tool, this tool will be self-contained. The Tool will include a user-guide which will cover input data requirements and format. The Tool is likely to be accessed by APN management, accounting, and finance personnel.

3. PORT OPERATIONAL REGULATIONS

APN as a landlord port authority has important environmental and safety stewardship responsibility within the boundaries of its jurisdictions. This generally covers the areas between the port entrance buoy and the port terminal gates. Accordingly, APN sets forth the conditions under which port users and service providers must operate in ports, including the port of Cap Haitien and other port facilities under APN's jurisdiction. The Port Operational Regulations Tool sets forth global best practice provisions composed in a template designed to enable the APN to adopt, revise, and delete provisions in accord with amendments as the regulatory system evolves to reflect best practices. Key provisions include annotations describing the rationale for including such provisions. Port legal, management, operational, and environmental and safety staff will need to revise operational regulations in response to changing conditions, such as changing fleet size and characteristics and obligations Haiti ascribes to in international protocols and treaties.

Port operational regulations generated through the use of the Port Operational Regulations Tool are to be posted to the APN website for reference by port customers and service providers. Some regulations are sourced from Haitian government agencies and departments. These are usually linked through to the source agency/department website. Other regulations originate with, and are prepared by, APN with the use of the Tool's templates and need to be catalogued and managed prior to posting on the APN website. APN management, legal, accounting, and operational staff will likely need access to the Tool for purposes of reference and revisions.

4. PREPARING LICENSES / PERMITS / LEASE AGREEMENTS / CONCESSION CONTRACTS

The success of the planned PPP transaction for Cap Haitien will likely encourage APN and the government of Haiti to engage private port service providers in the coming years. The Port Service Contracts Tool will consist of a set of legal templates that APN can use in the course of

such transactions. APN will need to update these in future years as Haitian law undergoes the usual course of new and amended laws that may have an effect on the structure and provisions of the templates. Annotations are provided addressing specific provisions and their rationale. Port legal, accounting, and finance staff will need to update and access these templates for revision and use.

APN management, lawyers, and accounting personnel participate in the preparation of various forms of legal vehicles (permits, licenses, leases, and concession contracts) to engage port service providers. Templates provided in the Port Services Contract Tool for these contract vehicles need to be maintained in a central location for future use as well as to revise them in accord with any changes in Haitian law. Additionally, archiving of previous and current agreements for future reference is needed.

Based on the above explanation of each tool, the RIS related supporting platform requirements can thus be summarized as the need for a document and data collaboration platform, providing:

- shared, central access to documents and data
- ability to organize and archive documents
- history of document versions, and data revisions
- security and permissions model to govern access and editing rights

3. RECOMMENDATIONS

To host and connect the four Regulatory tools, a centralized collaboration platform is required. Internet connectivity in Cap Haitien is such that there are occasional shutdowns of internet access. While this may create temporary delays in data reporting, the shutdowns seldom extend beyond a few hours. Additionally, conditions are expected to improve as DIGICEL and NATCOM expand their networks and reliability in the relative near term future. Hence, given that there is reasonably acceptable network connectivity, and expectations for improvements in coverage in Haiti, two options for establishing a collaboration platform exist. Using an on premise product and relying on WAN/VPN connections between offices, or subscribing to a commercial online service, directly accessible from all workstations.¹

Microsoft provides their SharePoint platform in both on premise and online formats. SharePoint offers 3 primary building blocks for information collaboration:

1. Lists – to store and share data (contact information lists, vendor lists, lists of regulations, etc.)
2. Libraries – to store and share documents (whether Word/Excel/PDF, etc.)
3. Wikis – collections of pages similar to Wikipedia that hold narrative information – like Wikipedia – can be used to store and share Standard Operating Procedures, Regulations, or Policies.

Once SharePoint is setup, configuration is required to create user accounts (or to use an existing Active Directory) and to configure the required sites and sub-sites, pages, lists, libraries, and wikis, as well as a security and permissions model to govern access and editing rights for each item.

A summary of the considerations for the online, and on premise format for SharePoint follows. Assuming international Internet connections are available to all end user workstations that require access to the RIS, SharePoint online offers the quicker and simpler start-up option.²

¹ Appendix defines the requirements for workstations.

² Note that as a starting point for determining RIS requirements, we conducted an IT survey (hardware and software) at APN's offices in Port au Prince and Cap Haitien. The results of the survey are presented in Appendix A. The considerations that follow are presented in view of the survey that was conducted.

	Online SharePoint, Plan 1	On premise SharePoint Foundation 2013
Description	Microsoft's Software as a Service offering of SharePoint. https://products.office.com/en-us/sharepoint/sharepoint-online-collaboration-software	Microsoft's free version of the SharePoint product, with fewer built-in Enterprise-level tools than their paid products. https://www.microsoft.com/en-us/download/details.aspx?id=35488 .
Summary		
	Lower up front cost, no hardware infrastructure setup required. No software installation required. Suitable only if international Internet connections available at all workstations that need access to RIS.	May require hardware purchase and installation. Does require software installation. Suitable only if reliable international Internet connections at workstations are not available, and VPN capability between PAP and CH is in place, or can be installed.
Detailed considerations		
Network connection requirements	All user workstations need a good connection to the broader Internet (i.e. are able to reliably access international websites)	All user workstations need a good internet connection, but don't need to be able to access international websites, since the connections will be between offices in Haiti.
Network hardware requirements	N/A if Internet connection is available	If no WAN/VPN connection exists between CH and PAP offices: VPN hardware end points should be installed to provide this secure link. Any new office locations will also require WAN/VPN connections to PAP.
PC/Server hardware requirements³	Workstations capable of browsing the Internet, and running MS Office for the Tools.	Workstations capable of browsing the Internet, and running MS Office for the Tools. If no server is available on which to install SharePoint in ACH office in PAP: a Windows Server on which to install SharePoint Foundation.
Software costs	\$5/user/month	\$100/year for VPN management software license.

³ Appendix C provides server specifications.

	\$2,400 per year (40 unique users)	
Hardware costs	\$0	Server: \$8,000-9,000 VPN end points: \$3,000 x 2
SharePoint installation, configuration, training costs	5-20 days LOE	5-20 days LOE
Hardware installation, configuration, training costs.	\$0	9 days LOE (3 for server, 3 for each of PAP and CH VPN end points)
Ongoing support prospects	Good, Microsoft is pushing firmly in the direction of online software services. SharePoint is a key component of their online service offerings.	Active support will end over the next few years, however there is substantial documentation online already. Estimate 6-8 year useful life.
Software Payment method	Online via credit card for SharePoint online	Online via credit card for optional VPN maintenance software license.
Data/file storage location	Stored on cloud service data center according to Microsoft terms of service	Stored in SharePoint instance on server in PAP office.

APPENDIX A – EXISTING IT RESOURCES

Port Au Prince

- 103 desktops
- 63 laptops
- 43 Printers
- 4 servers
 - o One windows server 2008 R2 for users' accounts and desktop management, AVG Admin server for Antivirus. MySQL for database management system for inventory control.
 - o One windows server 2008 R2 for users' accounts and desktop management for ERP network (accounting, HR, other back office applications).
 - o One server for camera surveillance
 - o One file server

Cap Haitien

- 17 Desktop, connected to the internet
- 2 laptops, for use by the MIS technician.

Office	Computer hardware	Specifications	Qty	Tasks	Installed software	Internet access
Administrator	Defective desktop awaiting replacement - Printer		1-1	-	Microsoft Office	Yes
Cashier	Desktop Printer-Calculator	Desktop: Gateway SX2110G-UW318, 4GB RAM-500GB HDD, Windows 8.1 Pro Monitor: Benq LED GL 950-TA Keyboard: Acer SK-9020 Mouse: Gateway MOFFUO	1-1-1	Bookkeeping / Revenue reports	Microsoft Office	Yes
Captain	Desktop. Defective Printer	Desktop: Gateway SX2110G-UW318, 4GB RAM-500GB HDD,	1-1	-	Microsoft Office	Yes

Office	Computer hardware	Specifications	Qty	Tasks	Installed software	Internet access
	awaiting replacement.	Windows 8.1 Pro Monitor: Benq LED GL 950-TA Keyboard: Acer SK-9020 Mouse: Gateway MOFFUO				
Human Resources Manager	Desktop Printer- Calculator	Desktop HP Pavilion Slimline, 4GB RAM-500GB HDD, Windows 7 Home Premium Monitor Acer G205 Hv Keyboard: Acer SK-9020 Desktop Dell Optilex 3020, 4GB RAM-500GB HDD, Windows 10 Pro Monitor Dell D-2015HF Keyboard: Dell KB-212-B Mouse: Dell Printer: HP Laserjet P2055Dn Printer XEROX Workstation 3210 Printer: EPSON LQ-2090 Battery Backup Forza	2-3-1	Payroll - Personnel Management	Microsoft Office- Personnel Management - MySQL Server	Yes
Accounting	Desktop- Printer-Battery Backup Calculator	Desktop Gateway SX-2110G-UW318, 4GB RAM-500GB HDD, Windows 8.1 Pro Monitor Dell IN1930c Keyboard: Acer SK-9020 Mouse Gateway MOFFUO Printer HP Laserjet P1006 Battery Backup Forza	1-1-1-3	Comptabilité	Microsoft Office	Yes
General Controller	Desktop- Printer-Battery Backup	Dell Inspiron, 4GB RAM-500GB HDD, Windows 7 Professional Monitor Dell IN1930c Keyboard: Dell SK-8115 Mouse Dell Printer HP Deskjet 3050 Battery Backup Forza	1-1-1	-	Microsoft Office	Yes
Management	Desktop- Printer- Calculator	-	1-1-1	-	Microsoft Office	Yes
Operations	Desktop- Printer-Battery Backup	Desktop Dell Vostro 270 Monitor Dell LCD E2011Hc Keyboard: Dell KB-212-B Mouse Acer Printer HP Laserjet P-1102w Battery Backup Forza	1-1-1	Enregistrement	Microsoft Office	Yes
Billing	Desktop- Printer-Battery Backup Calculator	Desktop Compaq Presario SR 1055 CL, 2GB RAM-160GB HDD, Windows 7 Professional Keyboard: Compaq KB-0311 Mouse Compaq Printer HP Deskjet 2050 Printer OKI Microline 320	1-2-1-1	Billing	Microsoft Office	Yes

Office	Computer hardware	Specifications	Qty	Tasks	Installed software	Internet access
		Battery Backup Forza				
Data processing	Laptop	-	2	maintenance and repair software backup	Microsoft Windows XP,7,8,8.1- Ccleaner- HDD Recovery - Antivirus-	Yes
PFSO	Desktop-Laptop-Printer	Desktop Compaq Presario SR 1055 CL, 2GB RAM- 160GB HDD, Windows XP SP1 P Monitor HP LCD S1933 Keyboard: Compaq KB-0311 Printer HP Deskjet Ink Advantage 4645	1-1-1	-	Microsoft Office	Yes
Secrétariat Direction	Desktop-Printer-Battery Backup	Desktop Gateway SX2110G-UW318, 4GB RAM-500GB HDD, Windows 8.1 Pro Monitor Benq LED GL 950-TA Keyboard: Acer Desktop Gateway SX2110G-UW318, 4GB RAM-500GB HDD, Windows 8.1 Pro Printer HP Deskjet 2050 Printer XEROX Workcentre 3615	1-2-1	Secretariat	Microsoft Office	Yes
Operation Secretariat	Desktop-Printer-Battery Backup	Desktop Compaq Presario SR 1055 CL, 2GB RAM- 160GB HDD, Windows 7 Professionnel Keyboard: Compaq KB-0311 Monitor Benq LED GL 950-TA Mouse Compaq Printer HP Laserjet P2055Dn Battery Backup Forza	1-1-1	-	Microsoft Office	Yes
Human Resources Secretary	Desktop-Printer-Battery Backup	Desktop Gateway SX2110G-UW308, 4GB RAM-500GB HDD, Windows 8 Monitor Dell IN1930c LCD Keyboard: Acer KU-1112 Mouse- Printer Canon Pixma MX722 Battery Backup CDP	1-1	Secretary	Microsoft Office	Yes
Statistics	Desktop-Printer-Battery Backup-Calculator	Desktop Compaq Presario SR 1055 CL, 2GB RAM- 160GB HDD, Windows XP SP1 Monitor Dell IN1930c	1-1-1-2	Recording/Entrance and Exit Reporting	Microsoft Office	Yes

Office	Computer hardware	Specifications	Qty	Tasks	Installed software	Internet access
		LCD Keyboard: Dell RT7D50 Mouse Gear Head-OM3800U Printer HP Laserjet P1102w Battery Backup CDP				
Chief of Brigade	-	-	-	-	-	-
Assistant Port Facility Security Officer PFSO	Desktop and printers	-	1-1	-	Microsoft Office	Yes
Parking	Desktop- Battery Backup	Desktop Gateway SX2110G-UW318, 4GB RAM-500GB HDD, Windows 8.1 Pro Monitor AOC LCD 185 LM00013 Keyboard: Acer Battery Backup Forza SL-761	1-1	-	Microsoft Office	Non
Reception	-	-	-	-	-	-
Chief of Security	-	-	-	-	-	-

APPENDIX B – RECOMMENDED WORKSTATION SPECIFICATIONS

For any replacement workstations, the following specification is recommended:

This report recommends installation of four workstations (2 in PCH and 2 in CAP), with the following specifications:

Dell Inspiron 24 7000 Series, or equivalent;

This choice is to conform with existing equipment at APN.

Processor: 6th Generation Intel® Core™ i7-6700HQ Processor (6M Cache, up to 3.50 GHz)

Operating System: Windows 10 Pro, 64-bit, French

Microsoft Office

Security Software McAfee LiveSafe

LCD: 23.8" FHD (1920x1080) Truelife LED-Backlit Touch Display with IPS and Intel® RealSense® 3D Camera

Memory: 12GB, 2133MHz, DDR4; up to 16GB (additional memory is optional)

Hard Drive: 1TB 5400 rpm Hard Drive

Graphics Card: NVIDIA® GeForce® 940M 4GB GDDR3

Ports

Rear: 2 USB 2.0, 45 - RJ Ethernet Port, HDMI in, HDMI out

Side: 4 USB 3.0

Slots: 2 DIMM Slot

4:1 Memory Card Reader

Chassis

FHD Camera: 9.46kg / 20.86lb with Articulating Stand

3D Camera: 9.48kg / 20.90lb with Articulating Stand

Color: Black

Dimensions: Touch panel without stand 361.18mm x 582.98mm x 27mm / 14.22" X 22.95" X 1.06"

Sound Card: Stereo speakers professionally tuned with Waves MaxxAudio® Pro (Windows)

Wireless; 802.11ac + Bluetooth 4.2, Dual Band 2.4&5 GHz, 1x1

Keyboard

Dell KM713 Wireless Keyboard & Mouse

Mouse

Mouse included with Keyboard

APPENDIX C – RECOMMENDED SERVER SPECIFICATIONS

Assuming a single server with SharePoint configured to use built in database, instead of an MS SQL installation.

Processor: 64 bit, 4 cores

Operating System: The 64-bit edition of Windows Server 2008 R2 Service Pack 1 (SP1) Standard, Enterprise, or Datacenter or the 64-bit edition of Windows Server 2012 R2 Standard or Datacenter

Memory: 12- 16GB

Hard Drive: 1TB for system drive, 7200 RPM, or Solid State

Minimum requirements sourced from: [https://technet.microsoft.com/en-us/library/cc262485\(v=office.15\).aspx](https://technet.microsoft.com/en-us/library/cc262485(v=office.15).aspx)