



Fast Payment System (FPS) Solution

Request for Proposal

Version 1.0
31st October 2025

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1. Purpose and Background

1.1 Purpose

This Request for Proposal (RFP) is issued by the Central Bank of The Bahamas (hereinafter referred to as the Bank or the Central Bank), inviting technical and commercial proposals from qualified Bidders for the design, supply, implementation and ongoing support of a Fast Payment System (FPS) Solution.

The main objectives of this project are to:

- Implement a Fast Payment System (FPS) solution that enables real-time payments in the domestic payments space in The Bahamas.
- Ensure that the implemented solution supports real-time or near real-time payment transmission and on as near to a 24-hour and seven-day (24x7) basis as possible.
- Guarantee interoperability with existing payments and settlements platforms in The Bahamas, namely the Automated Clearing House (ACH), Bahamas Interbank Settlement System/Real Time Gross Settlement System (BISS/RTGS) and the Bahamian Dollar Central Bank Digital Currency (BDCBDC), the SandDollar.
- Facilitate both direct and indirect participation from commercial banks, credit unions and other payment services institutions operating in the domestic payments space.

This RFP outlines the overall scope of the initiative, including the expected outcomes, required vendor qualifications, submission constraints and the evaluation process.

The Bank seeks a Bidder with a proven track record of delivering the services and solutions outlined, herein, a demonstrated awareness of the spectrum of solutions available in the market, and the capacity to manage timelines, deliverables and implementation risks. Other factors that shall contribute to the selection of a Bidder include, but are not limited to, total cost, service and support, ease of use of the proposed solution, and interoperability with existing platforms and third-party applications.

1.2 Background

The Central Bank of The Bahamas, established in 1974, has as its mission “to foster an environment of monetary stability conducive to economic development, and to ensure a stable and sound financial system through the highest standards of integrity and leadership”.

A key component of a stable and sound financial system is to promote an efficient, accessible and modern payments ecosystem. To augment its efforts toward a durable and effective payments space, the Bank launched The Bahamas Payments System Modernization Initiative (PSMI) in the early 2000s. The PSMI aims to promote financial inclusion by enhancing the efficiency of the domestic payments landscape and target non-discriminatory access to financial services in The Bahamas. In line with this objective, the Bank has progressed a number of initiatives to drive increased payments efficiency. This includes the establishment of the Real Time Gross Settlement System (RTGS) and the local Automated Clearing House (ACH), the introduction of legislation to license and oversee non-bank providers of electronic payment instruments, the simplification of requirements for account opening, and most recently, the launch of a central bank digital currency (CBDC) to increase access to financial services. In addition, given the increased adoption of digital payment alternatives over the last five years, the Central Bank, through its Steering Committee on Cheque Reduction, has made steady progress towards a strategy for further reducing the usage of cheques in The Bahamas by 2026. This runs parallel to the broader objectives of the PSMI.

Therefore, the imminent FPS is intended to further support the Bank's efforts to increase payments efficiency in The Bahamas, by allowing for real-time payments, thereby, supporting commerce, the adoption of digital financial services (DFS), and—to a broader extent--financial inclusion.

The proposed FPS solution will encompass the following key functional capabilities:

- The secure transmission of payment messages and the availability of final funds (settlement) to the payee, occurring in real-time or near real-time, on as near to a 24-hour, seven-day basis as possible¹.
- The use of ISO20022 messaging standards, where applicable, for richer more structured data, enhancing customer insights and experience, better payment reconciliation, and faster processing.
- Utilization of a real-time settlement model between participants as opposed to a deferred net settlement model.
- The ability for end users to utilize multiple types of proxy identifiers (aliases) to perform payments.
- Application Programmable Interfaces (APIs) to allow for integration and interoperability. This includes interface with the central bank's digital currency.

¹ Payment Systems Development Group, The World Bank. *Fast Payment Systems, Preliminary Analysis of Global Developments* available at <https://thedocs.worldbank.org/en/doc/8f85b06f02562c802e97d9ec9d413b0e-0350012021/original/Fast-Payment-Preview-April21.pdf> .

- Configurable for high availability to allow for an uptime on as near to a 24x7 basis as possible.

Overall, the selected FPS solution must meet the following requirements:

- Be a commercial off-the-shelf (COTS), real-time settlement solution that aligns with the functional requirements as defined in this RFP.
- Have been successfully implemented for at least one central bank in the last 18 months.
- Be configurable to meet the current and future operational needs of the Bank.
- Include standardised APIs to enable seamless integration with other existing payment systems.
- Be stable, secure and accessible, supporting continuous service delivery transparency and user trust.
- Be a solution that readily and or easily integrates with the Bank's SandDollar for ease of payment and settlement in the domestic market.

1.3 Types of Proposals

Bidders are required to submit one proposal in the form of two proposal documents: a technical proposal document and a separate cost proposal document ([Section 3.15.8](#)). Bidders are limited to one proposal per Prime Bidder. Bidders shall be allowed to collaborate with others who may be included as subcontractors on multiple proposals. The result will be one contract between the Bank and the Prime Bidder. The Prime Bidder shall be wholly responsible for meeting the requirements of the RFP, for submission of the proposal and for performance of the entire contract. The Bank will consider the Prime Bidder to be the sole point of contact with regard to all contractual matters, including payment of all charges.

1.4 Contract Terms

The terms of service requested is anticipated to commence in two to four weeks of the contract agreement. A kickoff meeting to align objectives is required, followed by other key documents, including project scope, timeline for completion, among the required documents.

1.5 Contract Award

A contract awarded by the Bank will be based upon criteria, standards and weighting identified in this RFP as applied to the total solution proposal. Each Bidder's proposal will be considered as a whole solution, without limitation, including all hardware,

software and services proposed, qualifications of the Bidder and any subcontractors, and cost.

The Bank shall maintain full control and unequivocal rights to all data stored, created and developed as part of this contract and for a Fast Payments Solution.

2. Schedule of Events and Definition of Terms

2.1 Key Timelines Regarding Events Schedule

The following table provides the Schedule of Events for this RFP through contract execution. The contract term and work schedule set out herein represent the Bank's best estimate of the schedule that will be followed. If a component of this schedule (such as the proposal submission deadline) is delayed, then the rest of the schedule will be adjusted as needed.

EVENT	DATE	TIME
Request for Proposal Issue Date	31 st October, 2025	
Deadline for Submitting Questions	30 th November, 2025	4:00 pm (EDT)
Date for Question Responses	8 th December, 2025	
Proposal Submission Deadline	19 th December, 2025	4:00 pm (EDT)
Shortlisted Vendor Presentations	On or about 23 rd January, 2026	
Notice of Intent to Award	On or about 27 th February, 2026	

2.2 Definition of Terms

This RFP uses the following terminology:

- **“Automation”** refers the technique of making a process or a system function operate automatically.
- **“Bidder”** refers to any recipient of this RFP who submits a proposal. All references that would normally use the words Firm, Vendor, Offeror, or Bidder and Respondent, have been changed to Bidder for consistency.
- **“The Central Bank”** or **“the Bank”** refers to the Central Bank of The Bahamas and includes the related entities seeking the services described in this RFP, the Bank's employees, and independent consultants and vendors retained by the Bank for this Project.

- **“Commercially available”** means the material or goods must be available from a Bidder that provides ongoing support, maintenance, and licensing. Shareware and public domain software are not considered commercially available.
- **“Contract”** or **“Agreement”** refers to a signed agreement for consulting services between the successful Bidder and the Bank.
- **“Contractor”** refers to the vendor selected as the Prime Bidder as a result of this RFP.
- **“Disaster Recovery”** refers to the ability to recover from the loss of a complete system or site, whether due to natural disaster, system failure or malicious intent. Disaster recovery strategies include replication and backup/restoration.
- **“EOL”** refers to End of Life.
- **“EOVS”** refers to End of Vendor Support.
- **“FPS”** refers to a Fast Payment System solution.
- **“High Availability”** refers to the capability to maintain continuous operation and service delivery, minimizing downtime and ensuring users’ access even in the face of component failures or disruptions.
- **“Must”, “shall”, “mandatory” or “required”** means a requirement that must be met in substantially unaltered form for the proposal to receive consideration.
- **“Orchestration”** refers to the automation of linked workflows.
- **“On-premises”** refers to IT infrastructure hosted on an organization's premises, allowing full control over server management, security, and maintenance of networking equipment and data storage.
- **“Project”** refers to the objective of the contract, as a whole, the sum total of all elements of the contract.
- **“Proposal”** refers to the submission from a Bidder in response to the RFP for the design, development, implementation, licensing and software maintenance of the requested Fast Payment System (FPS) solution.
- **“RFP”** refers to this Request for Proposal.
- **“Role-Based Access Control (RBAC)”** refers to an access control method that assigns access rights based on user roles in the organization.
- **“Services”** refer to labor, resources and materials provided by the Contractor, as required to execute the Agreement.
- **“Should”** or **“desirable”** means a requirement having a significant degree of importance to the objectives of the Request for Proposal.

- **“Solicitation”** refers to the invitation by the Bank or proponents to submit formal quotations, bids, tenders, proposals or statements of qualifications in direct response to the invitation.
- **“Subcontractor”** refers to the party contracted with the Prime Bidder to deliver part of all of the solution and has no direct contractual relationship with the Bank.
- **“Successful”** or **“winning Bidder”** means the successful proponent to this Request for Proposal who enters into a written contract with the Bank.
- **“Supplier”** refers to an individual, Bidder, consultant, or group awarded an agreement under a Bank solicitation invitation.
- **“TBD”** refers to ‘To Be Determined’.

3. Proposal Instructions, Content, and Format

3.1 Proposal Inquiries

All inquiries, interpretations, or clarifications, either administrative or technical, regarding this RFP, must be requested by email no later than the date indicated in the Schedule of Events. All non-proprietary written questions will be answered in writing and conveyed to all Bidders. Oral statements concerning the meaning or intent of the contents of this RFP by any person are not considered binding. Questions regarding any aspect of this RFP should be sent electronically to:

Tenders Committee

Central Bank of The Bahamas

Subject Line: **CDFPS202501 Fast Payment System (FPS) Solution Request for Proposals**

Via E-Mail: tenderscommittee@centralbankbahamas.com

3.2 Delivery of Proposal

Electronic copies of the proposal must be received by the 19th December 2025 at or before 4:00 pm EDT. Faxed, hardcopy or oral proposals will not be accepted and could result in disqualification.

A Bidder’s failure to submit its proposal in the submission timeline will disqualify the proposal. Late proposals or amendments will not be accepted for evaluation.

All proposals submitted in response to this RFP must consist of a single electronic version of the proposal, including all required attachments (may be separate electronic documents but clearly identified), and be accompanied by a digitally signed transmittal

letter described in [Section 3.15.2: Transmittal Letter](#). The Cost Proposal ([Section 3.15.8](#)) must be submitted as a separate electronic document.

3.3 Required Review

Bidders should carefully review this solicitation for defects and questionable or objectionable material. The Bank must receive comments concerning defects and objectionable material at least five days before the proposal opening. This will allow issuance of any necessary amendments. It will also help to prevent the opening of a defective solicitation and exposure of Bidders' proposals upon which award could not be made. Protests based on any omission or error, or on the content of the solicitation, will be disallowed if these faults have not been brought to the attention of the Bank, in writing, at least five days before the time set for bid opening.

3.4 Errors and Omissions

If prior to the date fixed for submission of proposal a Bidder discovers any ambiguity, conflict, discrepancy, omission or other error in the RFP or any of its exhibits and/or appendices, the Bidder shall immediately notify the Bank of such error in writing and request modification or clarification of the document. Modifications may be made by addenda prior to the RFP response deadline. Clarifications will be given by written notice to all active Bidders, without divulging the source of the request for it.

3.5 Addenda

The Bank may modify this RFP, any of its key action dates, or any of its attachments, prior to the date fixed for submission by issuance of a written addendum posted to its website. Addenda will be numbered consecutively as a suffix of the RFP Reference Number.

3.6 Amendments to Proposals

Amendments to, substitutions of or withdrawals of proposals will only be allowed if acceptable requests are received prior to the deadline that is set for receipt of proposals. No amendments, substitutions or withdrawals will be accepted after the deadline, unless they are in response to the Bank's request.

3.7 Right of Rejection

Bidders must comply with all of the terms of the RFP and all applicable laws governing the Commonwealth of The Bahamas.

The Bank may reject any proposal that does not comply with all of the material and substantial terms, conditions, and performance requirements of the RFP without

incurring any liability or obligation to inform the Bidder(s) of the grounds for the Bank's action.

The Bank may waive minor informalities that:

- do not affect responsiveness;
- are merely a matter of form or format;
- do not change the relative standing or otherwise prejudice other offers;
- do not change the meaning or scope of the RFP;
- are trivial, negligible, or immaterial in nature;
- do not reflect a material change in the work; and
- do not constitute a substantial reservation against a requirement or provision.

The Bank reserves the right to refrain from making an award if it determines that to be in its best interest.

3.8 Subcontractors

Subcontractors may be used to perform work under this contract. If a Bidder intends to use subcontractors, the Bidder must identify the following in the proposal:

- a. Complete name of the subcontractor;
- b. Complete address of the subcontractor;
- c. Type of work the subcontractor will be performing;
- d. Percentage of work the subcontractor will be providing;
- e. A written statement signed by each proposed subcontractor, that clearly verifies that the subcontractor agrees to the terms of this RFP and is committed to rendering the services required by the contract.

N.B. The subcontractor must also comply with [Section 3.10: Bidders Certification](#) as outlined in this document.

The substitution of one subcontractor for another may be made only at the discretion and prior written approval of the Bank. If subcontractors are used, the Prime Bidder retains all responsibility for full delivery of all requirements of this RFP.

3.9 Conflict of Interest

Each proposal shall include a statement in the transmittal letter indicating whether or not the Bidder or any individual working on the contract has a possible conflict of interest (e.g., employed by the Bank) and, if so, the nature of that conflict.

The Bank reserves the right to cancel the award if any interest disclosed from any source could either give the appearance of a conflict or cause speculation as to the integrity of the solution by the Bidder. The Bank's determination regarding any questions of conflict of interest shall be final.

3.10 Bidders Certification

By signature on the proposal, Bidders certify that they comply with:

- a. the laws of the Commonwealth of The Bahamas (including National Insurance Board (NIB) certificate), Value Added Tax (VAT) compliance and a valid Business License);
- b. all terms and conditions set out in this RFP;
- c. a condition that the proposal submitted was independently arrived at, without collusion, under penalty of perjury; and
- d. the requirement that the offers will remain open and valid for at least 90 days.

If a Bidder fails to comply with [a] through [d] of this paragraph, the Bank reserves the right to disregard the proposal, terminate the contract, or consider the contractor in default.

3.11 Non-collusion

The Bidder's signature on a proposal submitted in response to this RFP guarantees that the prices, terms and conditions, and services quoted have been established without collusion with other Bidders and without effort to preclude the Bank from obtaining the best possible competitive proposal.

3.12 Disclosure of Proposal Content

All proposals and other material submitted become the property of the Bank and may be returned only at its option. All proposal information, including detailed price and cost information, will be held in confidence during the evaluation process and prior to the time a Notice of Intent to Award is issued.

Trade secrets and other proprietary data contained in proposals may be held confidential, if the Bidder requests, in writing, that the Bank does so, and if the Bank agrees, in writing, to do so. Material considered confidential by the Bidder must be clearly identified and the Bidder must include a brief statement that sets out the reasons for confidentiality.

3.13 System Demonstrations

The Bank reserves the right to require a Bidder to make system demonstrations of their proposed solutions onsite at its main office in Nassau, New Providence, The Bahamas. All costs associated with a demonstration shall be borne entirely by the Bidder.

3.14 Proposal Format

Vendors must organize their proposals in the following format:

- Technical Proposal
 1. Cover Page
 2. Transmittal Letter
 3. Table of Contents
 4. Executive Summary (concise overview of solution proposed)
 5. Introduction, Bidder's Background, Experience and References
 6. General System Design, Functional Specifications, and Implementation Approach (including responses to the requirements outlined in [Section 4: Scope of Work](#), including the specifications outlined in [Appendix B](#), and [Appendix C](#), (including responses using [Appendix D](#)).
 7. Risk management program as outlined in [Section 4.2.3: Vendor Risk Management Program](#).
 8. Draft contract with the proposal based on information in the RFP, including confidentiality and non-disclosure clauses.
 9. Copy of a valid Tax Compliance Certificate
 10. Copy of National Insurance Board (NIB) Certificate, if applicable
 11. Copy of current Business License
 12. Attachments and supporting documentation

- Cost Proposal

The Bidder must provide a point-by-point technical response stating compliance or taking exception to any or all sections of this RFP and provide sufficient information to allow the Bank to evaluate the proposal. Any deviations or exceptions to the Bank's requirements should be noted. Incomplete proposals or proposals that do not comply

with the Bank's stated requirements may be eliminated from the selection process at the Bank's discretion.

The Bank will retain full ownership, governance, and operational oversight of the FPS. Vendors must structure proposals to reflect the Bank as the system operator. Vendors should also note that legislative amendments to the Bahamas Payments System Act or related statutes may be required. Proposals should therefore incorporate the flexibility to accommodate potential regulatory changes during implementation.

3.15 Proposal Content

Proposals **must** contain the following:

3.15.1 Cover Page

The first page of the Bidder's proposal must be a cover page containing the following text:

**CENTRAL BANK OF THE BAHAMAS
CURRENCY DEPARTMENT
RESPONSE TO RFP No. CDFPS202501 Fast Payment System (FPS)
Solution Request for Proposals**

The cover page must also include the Bidder's name, contact person, contact telephone and/or fax number, address, bank, state, country, zip code and e-mail address.

3.15.2 Transmittal Letter

The Bidder must submit a signed transmittal letter with its response that includes the items below.

- a. Bidder's legal name and any other name under which the Bidder does business; mailing address; street address (for courier mail services); name and title of individual who will sign the contract; name and title of the Bidder contact person (if different); and for each key person: direct telephone number, fax number (if applicable), and e-mail address;
- b. A statement that the individual who signs the transmittal letter is authorized to commit the Bidder;
- c. A statement that the proposal is effective for a period of **90 days**;
- d. A guarantee that prices quoted in the proposal were established without collusion with other Bidders and without effort to preclude the Bank from obtaining the best possible competitive price;

- e. Acknowledgement that the Bidder has read this RFP and subsequent amendments;
- f. A statement indicating whether or not the Bidder or any individual working on the contract has a possible conflict of interest;
- g. A statement identifying all subcontractor and joint venture partners.

3.15.3 Table of Contents

The Bidder must provide a table of contents with corresponding page numbers related to its proposal.

3.15.4 Executive Summary

The Executive Summary, which must not exceed five pages, must provide a concise overview of the Bidder's proposed solution and services, but must exclude pricing information. Bidders are encouraged to highlight those factors that they believe distinguish their proposals from their competitors.

3.15.5 Introduction, Bidder Background, Experience and References

The Bidder must provide an introduction, the background of the Bidder and details of the organization's experience with deploying similar solutions. As the Bank will evaluate qualifications of key staff proposed by the Bidder, this section should include:

- a. Proposed team organization and the designation and identification of key staff;
- b. Qualification of the candidate for project manager;
- c. Qualifications of candidates for key Bidder staff roles, i.e., solution design architects, solution engineers, etc.; and
- d. References: last three implementations for this proposed solution.

3.15.6 Proposed Solution

The Bidder must detail the proposed solution up to and including the following:

- a. Provide a brief solution overview of the various solution components, their release history, current release being proposed, and number of operational installations for the proposed software solution;
- b. Describe and illustrate the general system design of the proposed solution;
- c. Provide a narrative on how the proposed solution addresses the requirements outlined in [Section 4: Scope of Work](#), including the specifications outlined in [Appendix B](#) and [Appendix C](#) (including

detailed explanations using [Appendix D](#)). Include all requested narrative responses.

- d. Identify any additional features, functionality, recommended solution components or services that were not outlined in [Section 4: Scope of Work](#) but that the Bidder recommends that the Bank consider. Include a description of the features and functions of each additional proposed module;
- e. Describe the security features of the proposed solution;
- f. Describe alternative service delivery models (i.e., Software-as-a-Service, Application Service Provider, Hosted, etc.) available to the Bank and indicate how these might impact the proposed solution; and
- g. Confirm ability to conform to the requirements in [Section 4: Scope of Work](#) and the related Appendices or clearly articulate proposed alternatives.

3.15.7 Implementation Approach and Work Plan

Bidders are required to describe their proposed implementation approach, clearly identifying each phase, the timeline proposed, roles and responsibilities to be performed by the Bidder and those to be performed by the Bank. The Bidder should clearly indicate the Bank's resource requirements needed to meet the Bidder's proposed schedule and:

- a. Describe your implementation and project management methodology and approach to ensure a successful implementation;
- b. Provide a project organization chart highlighting the key staff who will be assigned to the project. Provide names and resumes for the project manager and other key assigned resources;
- c. Provide a detailed work plan that identifies major activities, tasks, deliverables, and resources. The work plan should assume that project will kick-off in no more than three weeks of the approval of the contract by the Bank;
- d. Describe the roles and responsibilities of Bank staff during implementation. Include the minimal and optimal number of Bank staff members (with job category) and the expected role and level of effort during each phase of the project;
- e. Describe the roles and responsibilities of the Bank staff required to maintain and update the system during the first five years. Include the minimal and optimal number of Bank Staff members (with job category), the expected role and level of effort on an on-going basis;
- f. Describe your change management methodology and activities that will be performed during the implementation;

- g. Describe your user acceptance methodology and the responsibilities of Bank staff during testing;
- h. Describe your training methodology and approach; and
- i. Describe how the use of any alternative service delivery models would impact the proposed implementation approach, work plan and Bank staff level of effort.

3.15.8 Cost Proposal

As indicated in [Section 3.2: Delivery of Proposal](#), the Cost Proposal must be separated from the remainder of the RFP response documents. The Bank seeks a clear and comprehensive understanding of all costs associated with the acquisition, implementation and ongoing maintenance of the proposed solution. In this section, Bidders must itemize all costs inclusive of all shipping, taxes (e.g., Value Added Taxes and duties). In addition to a detailed cost breakdown, a three-year Total Cost of Ownership worksheet must be completed as part of the cost proposal. A sample of the worksheet can be found in [Appendix A: Pricing Worksheet](#).

3.15.9 Contract Payment Details

This section should outline, among other things specific to your firm, the following terms and conditions (for further details, see [Appendix A: Pricing Worksheet](#)):

1. Total contract sum (inclusive of all taxes and charges)
2. Mobilization deposit
3. Stage payments
4. Final payment
5. Retention terms

4. Scope of Work

4.1 Solution Scope

This section outlines the scope of work (SoW) for the implementation and deployment of a Fast Payment System (FPS) solution for the Bank. The purpose of this section is to provide prospective vendors with a clear understanding of the Bank's technical, operational, and strategic requirements and expectations related to the FPS. The selected solution will serve as a foundational component of the Bank's ongoing efforts to modernize the domestic payments infrastructure and support real-time or near real-time payments on a near 24x7 operational basis. The FPS must, either directly or indirectly, provide non-discriminatory access to all prospective participants, ensuring equitable participation and fostering financial inclusion. These may include licensed commercial banks, credit unions and approved non-bank payment service providers.

4.2 Background:

The Bahamas Payments System Modernization Initiative (PSMI) seeks to achieve improved outcomes for financial inclusion by advancing efficiencies in the domestic payments system to promote non-discriminatory access to financial services in The Bahamas. In line with this objective, the Bank has progressed a number of initiatives to drive increased payments efficiency, including the establishment of the Real Time Gross Settlement System (RTGS) and local Automated Clearing House (ACH), the introduction of legislation to license and oversee non-bank providers of electronic payment instruments, the simplification of requirements for account opening, and most recently, the launch of a central bank digital currency (CBDC) to increase access to financial services. In addition, given the increased adoption of digital payment alternatives over the last five years, the Central Bank, through its Steering Committee on Cheque Reduction, has made steady progress toward a strategy for further reducing the usage of cheques in The Bahamas by 2026, which runs parallel to the broader objectives of the PSMI.

In an effort to continue its efforts toward modernizing the domestic payments system, the Bank intends to launch a Fast Payment System (FPS), which will allow for faster payments that settle in real time, or as near to a real time basis as possible, utilizing a real-time settlement model as the primary settlement mechanism. This should be achieved by either utilizing dedicated prefunded RTGS accounts for each participant or by collateralized FPS-level settlement accounts.

This is a natural next step to the milestones achieved under the current PSMI, and is aligned with the Bank's broader strategic goals for a more efficient and modern payments system.

The goals of the PSMI are closely linked to the objectives of the FPS solution, which include:

- To support enhanced commerce by facilitating timely payments;
- To foster innovation in the domestic payments landscape;
- To ensure 100 percent of the population has universal access to digital financial services;
- To promote a reduction in the size of legitimate but unrecorded economic activities that take place in the informal sector;
- To allow for improved security and an enhanced end-user experience; and
- To promote financial inclusion.

Given these objectives, the implementation of a secure FPS solution that is interoperable with existing local payment platforms is imperative to The Bahamas' PSMI.

The solution requirement is detailed in [Appendix B](#) and [Appendix C](#) for the proposed FPS solution. The Bidder must specify whether they comply with these specifications with necessary clarifications in the 'Comments' column. The scope will broadly include:

4.2.1 Supply of Hardware and Software

- A. Hardware: The Bidder will provide the required hardware, if applicable, along with the licenses for the operating systems and database. If the solution requires hardware or services on-premise, the Bank prefers hardened virtual and physical appliances.
- B. Software: The Bidder will supply the required licenses as it relates to the supply and support of a FPS solution, as per Bank's specifications.

4.2.2 Implementation & Integration Services

The Bidder will be responsible for the installation and commissioning of the entire solution. The installation and commissioning services will include, but not be limited to the following:

- Installing the Fast Payment System solution at the Bank's primary and secondary datacenters.
- Configuring high availability for the solution.
- Operationalize and optimizing the FPS solution.
- Configuration of all features included in this RFP.
- Project documentation.
- Project hand-over inclusive of user and administrator training.
- Completion of the project end-to-end.
- Stepwise documentation for all administrative activity.
- Post-implementation support for 60 days.

4.2.3 Vendor Risk Management Program

The Bidder shall maintain a documented risk management program consistent with recognized frameworks, along with establishing strategies. The program must cover technology, operations, information security, fraud, privacy, third-party and supply chain risk, and must be applied to the FPS through implementation and steady state operations.

4.3 Solution Delivery

The Bank seeks to implement the proposal FPS solution in phases with an overall completion in 40 to 44 weeks from the firm order date. To accomplish this, the Bank envisages the following initial milestones that will be further developed and agreed with the selected vendor.

Number	Milestones	Week
1	Solution Requirements Specification and Detailed Design	1-3
2	Software Delivery and Test Environment Deployment	30
3	User Acceptance Testing and Security Review	31-34
4	Participant Pilot	35-38
5	Training	39
6	Documentation and Project completion sign-off	40

5. Evaluation Criteria and Vendor Selection

5.1 Proposal Evaluation Weightings

Proposals will be evaluated based on the following weights (100%):

- Technical Proposal – 80 percent
- Financial Proposal – 15 percent
- Solution presentation and demonstration – 5 percent

The Technical Proposal will be evaluated based of the following attributes.

Attribute	Weight
Adherence to RFP submission requirements.	5
Solution design and compliance with the technical, functional and non-functional requirements of the delivered solution.	20
Relevant knowledge, experience and qualification of Bidder and team members, including established record of success in similar projects.	20
Documented risk management program that covers technology, operations, information security, supply chain and other risks, as it relates to a successful delivery of the proposed solution.	5
Vendor and Solution References.	15
Implementation Methodology and Approach.	15
Timeline for recommended solution to be implemented.	10
Training, documentation, service, support, product warranty and maintenance.	10
Total	100

The Bidder with the highest combined total points will be selected.

5.2 Rating and Scoring

Proposals will be evaluated and ranked according to the outline below. The evaluation will be based on a 0 to 10 scale. The score of each criterion will be determined by multiplying the criteria weight by the rating. The sum of all scores will be the total score.

Rating	Description
10	Exceeds expectations; Proposal clearly addresses and exceeds requirements, excellent probability of success.
8	Somewhat exceeds expectations; Proposal addresses all requirements, very good probability of success.
6	Meets expectations; Proposal addresses basic requirements, good probability of success.
4	Somewhat meets expectations; minor weakness or deficiencies, Proposal partially addresses requirements, fair probability of success.
2	Does not meet expectations or demonstrate understanding of the requirements, low probability of success.
0	Lack of response or complete misunderstanding of the requirements, no probability of success.

5.3 Planned Evaluation Steps

The Bank plans to use the following multi-tiered process:

- Initial screening; see [Section 5.3.1](#).
- Preliminary evaluation of the written proposals and reference checks.
- Final evaluation of proposals.

5.3.1 Initial Screening

The Bank will conduct an initial screening step to verify Bidder compliance with submission requirements. A proposal that fails to satisfy the minimum standards shall be considered nonresponsive and disqualified from the proposal evaluation process.

Bidders must meet all the mandatory minimum requirements in this section by providing a written, affirmative response to each of the criteria stated below.

- By submitting a response, the Prime Bidder accepts the terms of this request for proposal.
- Proposals must be submitted in the form of two separate documents; a technical proposal and a cost proposal.
- The proposed solution must currently be in production.

- d. The Prime Bidder must be an authorized solution provider for the proposal solution.
- e. The Prime Bidder must fully support the proposed solution throughout the life of the contract, including but not limited to: bug fixes, replacement parts, support, etc.
- f. The Bidder and their subcontractors must agree to protect the privacy and security of the Bank's data at all times and further agrees not to use or disclose such data other than to accomplish the objectives of the project.
- g. The Prime Bidder has a minimum of three years of experience providing FPS solutions for central banks and other financial institutions.
- h. The Prime Bidder will ensure that adequate and expert staffing is assigned for the duration of the project.

5.3.2 Evaluation of Written Proposals

The Bank will establish a Proposal Evaluation Committee composed of Bank employees and inclusive of subject matter experts to evaluate proposals received in response to this RFP.

5.3.3 Final Evaluation

The Bank will conduct final evaluations as a culmination of the entire process of reviewing Bidder proposals and information gathering.

5.4 Proposal Evaluation

In evaluating the proposals submitted in response to the RFP, the Bank will apply the "Best Value" standard. Evaluations will be based upon the criteria and standards contained in this RFP and from applying the weightings listed in [Section 5.1](#) above as well as the qualitative factors listed below. Purchase price is not the only criteria that will be used in the evaluation process. Any award resulting from this RFP will be made to that vendor whose offer conforms to the RFP and it is determined to be the most advantageous, of "best value" to the Bank, in the sole judgment of the Bank.

- 1. The quality and range of services the Bidder proposes to provide.
- 2. Degree of alignment with the Bank's technical and operational requirements, including interoperability with existing system.
- 3. The Bidder's overall experience, reputation, expertise, stability and financial responsibility.
- 4. The Bidder's past relationship with the Bank, if any.

5. The experience and qualifications of the staff that will be assigned to implement the solution and service the Bank's account. This should be accompanied with evidence of the relevant industry certifications.
6. The ability to provide service in an expedient and efficient manner.
7. Quality and range of management and performance reports.
8. Vendor's financial terms offered to the Bank.
9. The training options available and the supported delivery formats.
10. The total, long-term cost to the Bank to acquire the vendor's goods and services.
11. Clarity and credibility of the vendor's approach to meeting the stated requirements.
12. Service Level Agreement (Triage and Response Times), if applicable.
13. Any other relevant factor that the Bank would consider in selecting a supplier.

Reference checks will be used to refine and finalize preliminary scores.

5.4.1 Converting Costs to Points

The lowest cost proposal will receive the maximum number of points allocated to cost. The point allocations for cost on the other proposals will be determined through the methodology set out below. In the generic example below, cost is weighted as 25 percent (25%) of the overall total score.

Example - Formula Used to Convert Cost to Points

[STEP 1] - List all proposal prices

- Bidder #1 - \$140,000
- Bidder #2 - \$142,750
- Bidder #3 - \$147,500

[STEP 2] - Convert cost to points using this formula.

$$\frac{[(\text{Price of Lowest Bidder}) \times (\text{Maximum Points for Cost})]}{(\text{Cost of Each Bidder Proposal})} = \text{POINTS}$$

The RFP allotted 25% (25 points) of the total of 100 points for evaluation.

Bidder #1 receives 25 points. The reason they receive that amount is because the lowest cost proposal, in this case \$140,000, receives the maximum number of points allocated to cost, 25 points.

Bidder #2 receives 24.52 points, i.e., $\$140,000 \times 25 = 2,800,000 \div \$142,750$

Bidder #3 receives 23.73 points, i.e., $\$140,000 \times 25 = 2,800,000 \div \$147,500$

6. Standard Proposal Information

6.1 *Assignment*

The contractor may not transfer or assign any portion of the contract without prior written approval from the Bank.

6.2 *Disputes*

Any dispute arising out of this agreement will be resolved under the laws of the Commonwealth of The Bahamas. Any appeal of an administrative order or any original action to enforce any provision of this agreement or to obtain relief from or remedy in connection with this agreement may be brought only in the Supreme Court for the Commonwealth of The Bahamas.

6.3 *Severability*

If any provision of the contract or agreement is declared by a court to be illegal or in conflict with any law, the validity of the remaining terms and provisions will not be affected; and, the rights and obligations of the parties will be construed and enforced as if the contract did not contain the particular provision held to be invalid.

6.4 *Supplemental Terms and Conditions*

Proposals must comply with [Section 3.7: Right of Rejection](#). However, if the Bank fails to identify or detect supplemental terms or conditions that conflict with those contained in this RFP or that diminishes the Bank's rights under any contract resulting from the RFP, the term(s) or condition(s) will be considered null and void.

After award of contract:

- a. If conflict arises between a supplemental term or condition included in the proposal and a term or condition of the RFP, the term or condition of the RFP will prevail.
- b. If the Bank's rights would be diminished as a result of application of a supplemental term or condition included in the proposal, the supplemental term or condition will be considered null and void.

6.5 *Clarification of Offers*

To determine if a proposal is reasonably susceptible for award, communications to clarify uncertainties or eliminate confusion concerning the contents of a proposal are permitted between the Bank or the Proposal Evaluation Committee and a Bidder. Clarifications may not result in a material or substantive change to the proposal. The

evaluation by the Bank or the Proposal Evaluation Committee may be adjusted as a result of a clarification under this section.

6.6 Discussion with Bidders

The Bank may conduct discussions with Bidders for the purpose of ensuring full understanding of the requirements of the RFP and proposal. Discussions will be limited to specific sections of the RFP or proposal identified by the Bank. Discussions will only be held with Bidders who have submitted a proposal deemed reasonably susceptible for award by the Bank. Discussions, if held, will be after initial evaluation of proposals by the Proposal Evaluation Committee. If modifications are made as a result of these discussions, they will be put in writing. Following discussions, the Bank may set a time for best and final proposal submissions from those Bidders with whom discussions were held. Proposals may be reevaluated after receipt of best and final proposal submissions.

If a Bidder does not submit a best and final proposal or a notice of withdrawal, the Bidder's immediate previous proposal is considered the Bidder's best and final proposal.

Any oral modification of a proposal must be made in writing by the Bidder.

Bidders with a disability needing accommodation should contact the Bank prior to the date set for discussions so that reasonable accommodation can be made.

6.7 F.O.B. Point

All goods purchased through this contract will be F.O.B. final destination. Unless specifically stated otherwise, all prices offered **must** include the delivery costs, inclusive of all taxes, shipping and duties, to the Bank's main office in Nassau, The Bahamas. The Bank will **not** be responsible for storage fees prior to installation and commissioning of the solution.

6.8 Contract Negotiation

After final evaluation, the Bank may negotiate with the Bidder of the highest-ranked proposal. Negotiations, if held, shall be in the scope of the request for proposal and limited to those items, which would not have an effect on the ranking of proposals. If the highest-ranked Bidder fails to provide necessary information for negotiations in a timely manner, or fails to negotiate in good faith, the Bank may terminate negotiations and negotiate with the Bidder of the next highest-ranked proposal. If contract negotiations are commenced, they may be held at the Bank's main office in Nassau, The Bahamas.

If the contract negotiations take place in Nassau, The Bahamas, the Bidder will be responsible for their own travel and per diem expenses.

6.9 Failure to Negotiate

If the selected Bidder:

- a. fails to provide information required to begin negotiations in a timely manner.
- b. fails to negotiate in good faith.
- c. indicates they cannot perform the contract in the budgeted funds available for the project.
- d. and the Bank, after a good faith effort, simply cannot come to terms, then the Bank may terminate negotiations with the Bidder initially selected and commence negotiations with the next highest-ranked Bidder.

6.10 Notice of Intent to Award

After the completion of contract negotiation, the Bank will issue a written Notice of Intent to Award (NIA) to the successful Bidder and send copies to all Bidders. The NIA will set out the names of all Bidders and identify the proposal and supplier selected for award.

7. Standard Contract Information

7.1 Contract Approval

This RFP does not by itself obligate the Bank. The Bank's obligation will commence when the Governor of the Central Bank or the Governor's designee, in accordance with internal procedures approves the contract. Upon written notice to the Contractor, the Bank may set a different starting date for the contract. The Bank will not be responsible for any work done by the contractor, even work done in good faith, if it occurs prior to the contract start date set by the Bank.

7.2 Proposals as Part of the Contract

The RFP and the successful proposal may be incorporated into the contract agreement.

7.3 Additional Terms and Conditions

The Bank reserves the right to add terms and conditions during contract negotiations. These terms and conditions will be in the scope of the RFP and will not affect the proposal evaluations.

7.4 *Proposed Payment Procedures*

The Bank will make payments based on a negotiated payment schedule. The agreed payment terms will be final and no amendments in the payment terms are permissible.

Each billing must consist of an invoice and progress report. The Bidder must include all costs including travel and living expenses incurred during the project life cycle as a part of the Bill of Materials and the Bank will not bear any additional costs on these.

Payment will only be made after the Bank's project manager approves the progress report and invoice. The Bank will not pay in full for hardware, software or services until received by the Bank.

7.5 *Retainer*

A withholding (retainer) of 15 percent (15%), will be taken off every invoice amount paid to the supplier under this contract. This accumulated balance will be paid at the end of the project, as defined in the final contract.

7.6 *Contract Payment*

No payment will be made until the contract is approved by the Governor of the Central Bank or the Governor's designee. Under no conditions will the Bank be liable for the payment of any interest charges associated with the cost of the contract.

The Bank is not responsible for and will not pay taxes. All costs associated with the contract must be stated in Bahamian currency.

7.7 *Contract Personnel*

Any change of the project team members named in the proposal must be approved by the Bank's project manager, two weeks in advance and in writing. Personnel changes that are not approved by the Bank may be grounds for the Bank to terminate the contract.

7.8 *Inspection and Modification*

The contractor is responsible for the completion of all work set out in the contract. All work is subject to inspection, evaluation and approval by the Bank's project manager.

The Bank may employ all reasonable means to ensure that the work is progressing and being performed in compliance with the contract. Should the Bank's project manager determine that corrections or modifications are necessary in order to accomplish its

intent; the Bank's project manager may direct the contractor to make such changes. The contractor will not unreasonably withhold such changes.

Substantial failure of the contractor to perform the contract may cause the Bank to terminate the contract. In this event, the Bank may require the contractor to reimburse monies paid by the Bank (based on the identified portion of unacceptable work received) and may seek associated damages.

7.9 Termination for Default

If the Bank's project manager determines that the contractor has refused to perform the work or has failed to perform the work with such diligence as to ensure its timely and accurate completion, the Bank may, by providing written notice to the contractor, terminate the contractor's right to proceed with part or all of the remaining work.

7.10 Schedule Delay Penalty

In the event of a delay in delivering the proposed solution beyond the agreed-upon timeline without justifiable cause, a penalty of one percent (1%) per week of delay or part thereof, subject to a maximum of five percent (5%) of the contract value shall be deducted from the final contract payment after the successful installation and commissioning of the solution.

The vendor must promptly notify the Bank in writing of any foreseen delays, providing a detailed explanation and revised delivery schedule. Failure to notify in advance may impact penalty calculations.

Extensions to the delivery schedule may be considered under exceptional circumstances, such as force majeure events, provided that the vendor provides documented evidence supporting the delay.

7.11 Contract Changes – Unanticipated Amendments

During the course of this contract, the contractor may be required to perform additional work that is not currently included in this RFP. That work will be in the general scope of the initial contract. When additional work is required, the Bank's project manager will provide the contractor a written description of the additional work and request the contractor to submit a time schedule for accomplishing the additional work and a price for the additional work. Cost and pricing data must be provided to justify the cost of such amendments.

The contractor will not commence additional work until the Bank's project manager has secured any required Bank approvals necessary for the amendment and issued a written

contract amendment approved by the Governor of the Central Bank or the Governor's designee.

7.12 Contract Invalidation

If any provision of this contract is found to be invalid, such invalidation will not be construed to invalidate the entire contract.

8. Appendix A: Pricing Worksheet

For all available deployment models, Bidders must provide an itemized listing of all hardware, software and services required to meet the specifications outlined in this request for proposal. Costs must include any and all taxes (e.g., Value Added Tax), shipping and duties. Additionally, Bidders must provide a 3-year cost summary using the table displayed below.

Price Description	Non-Recurring (Base)	Recurring (Annual)	3-Yr Extended Cost
Product Costs			
Hardware Cost			
Software Licensing			
Another Licensing & Per Feature Cost			
Maintenance/Support			
Implementation Services			
Project Management			
Documentation & Training			
Additional Costs (Attach description)			
TOTAL			

Hardware: If applicable list, describe, and record the cost of each piece of hardware that is required.

Software: List, describe, and record the licensing, implementation, maintenance, support and training fees associated with your proposed solution.

Documentation & Training: List, describe, and record the cost of developing/delivering the required technical, administrative and end-user documentation for the proposed solution. Please also include all training fees associated with your proposed solution.

Support/Maintenance: List, describe and record the ongoing costs associated with the maintenance, support and operation of your proposed solution.

Implementation: Describe any labor, equipment, supplies, or other costs associated with installing your proposed solution.

Project Management: If there are project management fees associated with your proposed solution, list and describe them here.

Miscellaneous: List and describe any other costs associated with your proposed solution.

9. Appendix B: Non-Functional Requirements

The proposed Fast Payment System solution should meet or exceed the following non-functional requirements. Bidders must indicate in their proposal how each requirement will be satisfied.

- Scalability:
 - The solution should scale with increased user adoption, supporting payments amongst at least 350,000 aliases.
- Availability:
 - The solution should have a minimum uptime of 99.99% per annum.
- Security:
 - The solution must have built in compliance with industry-standard encryption protocols.
 - The solution must have strong access controls and encryption to protect sensitive data.
 - The solution must be able to comply with the Bank's retention policies for transactional data and audit logs.
- Usability:
 - The solution should have an intuitive user interface for administrators and other authorized users.
 - The solution must have comprehensive documentation and training resources.
- Implementation:
 - The vendor must provide a detailed project management document outlining the timeline and resources required to implement the proposed solution.

10. Appendix C: Solution Technical and Functional Requirements and Specifications

10.1 Functional Requirements

The proposed Fast Payment System (FPS) solution should include, but not be limited to, the following functionalities:

- User Authentication and Authorization:
 - a. Centralized user authentication and authorization mechanism.
 - b. Role-based access control (RBAC) for defining user privileges.
 - c. User authentication against corporate directories (e.g., Active Directory).
 - d. Support for and integration with third-party multifactor authentication and secure identity and access solutions.
- Administration and Management:
 - a. Creation and management of participants across access type and participant type.
 - b. Comprehensive proxy identifier (alias) database.
- Clearing and Settlement:
 - a. Collateralized real-time settlement model either against the existing RTGS system or in technical accounts maintained in the proposed solution itself.
 - b. Liquidity management tools and alerts.
 - c. Instant or near instant payment processing with a maximum average SLA of six (6) seconds.
 - d. QR code standardization.
 - e. Built in payment refund and dispute mechanisms.
- ISO20022 message types:
 - a. Support for ISO20022 Payments Clearing and Settlement (pacs) messages.
 - b. Support for ISO20022 Payment Initiation (pain) messages.
 - c. Support for ISO20022 Account Management (acmt) messages.
 - d. Support for ISO20022 Cash Management messages (camt).
- Interoperability and Integrations:
 - a. Interoperability with the existing Real-Time Gross Settlement (RTGS) system.
 - b. Integration with other existing payment systems in the domestic payments space in The Bahamas.

- c. Integration with the Bank's digital currency system to facilitate ease of payment and where necessary, settlement in the domestic market.
 - d. APIs for participant access and the transmission of messages.
 - e. Integration with third-party security and fraud monitoring tools.
 - f. Integration with Security Information and Event Management (SIEM) system.
- Cybersecurity:
 - a. Adherence to local and global financial regulations.
 - b. Alignment with ISO27001 and other applicable industry standards.
 - c. Supports Adaptive Authentication.
 - d. Support Identity Proofing.
 - e. Secure access control implementation.
 - f. Supports advanced logging and auditing features.
 - g. Compatible with Zero Trust Network Architecture.
 - h. Supports encryption of data at rest, in transit and in-use.
 - i. Supports the latest TLS encryption standards.
 - j. Secure and encrypted API gateways and interfaces.
 - k. Configurable for redundancy and an active-active high availability infrastructure.
 - l. DDoS mitigation technologies (e.g., Web Application Firewalls, Traffic Filtering, Content Delivery Networks).
- Audit and Reporting:
 - a. Logging of every transaction processed by the FPS.
 - b. Comprehensive reporting functionalities for compliance and AML audits.
 - c. Customizable reports on user access, message flows and usage patterns.
 - d. Customizable dashboards.
 - e. Performance monitoring.
- Billing Module:
 - a. Custom billing rate creation.
 - b. Automatic invoice creation with the flexibility to set billing cycles and invoice dates.
 - c. Mechanisms to automatically collect invoices on due dates against participant accounts.

10.2 Detailed Technical Specifications

In addition to the minimum specifications listed above, the proposed solution must meet the following specific requirements. The following answer key should be used when responding to the specifications:

Y = Fully meets specification, “out-of-the box”.

A = Available in the next version (include estimated date of release).

T = Specification is provided through third-party software.

M = Modifications necessary to meet specification.

W = Specification is not provided, but there is a reasonable work-around.

C = Customization/change of source code required to meet specification.

N = Specification is not, and cannot, be provided.

If any symbol other than “Y” or “A” is the response for a specification, the Bidder must complete [Appendix D: Bidder Comments to Technical Specifications Sheet](#). Any specification that is answered with a symbol other than what is listed above will be treated as a negative/non-response.

No.		Requirements	Response Code	Comments
System-wide Technical Specifications				
A	1	The solution utilizes a graphical user interface, preferably web based and accessed via a standard browser. Please indicate which browsers are supported or note any exceptions.		
A	2	Where applicable, the solution includes drop-down menus lists or other look-up features, such as autocomplete, to ensure consistent and validated data entry.		

No.		Requirements	Response Code	Comments
A	3	The solution is ODBC compliant (does not require a third-party interface), providing the ability to access data without third-party products such as Microsoft Excel, Microsoft Access, etc.		
A	4	The solution is capable of running on Windows or Linux servers in a virtualised environment. Specify any other compatible OS or limitations. If your software does not run-on Microsoft or Linux operating systems, please specify which operating systems it supports.		
A	5	Provide the minimum CPU, memory, storage, switching and bandwidth, specifications that would be required for the proposed solution to operate efficiently. Also detail if any specific hardware is required to run the proposed solution.		
A	6	The solution must support high transaction volumes during peak processing times. Please indicate the supported volume per minute for the solution proposed.		
A	7	The solution must keep a detailed audit of every user action and payment transaction. Audit details must include username, IP address, selected menu\screen, action taken, date, time.		
A	8	The GUI of the solution must be available in the English language.		
User Authentication and Authorization				
B	1	The solution must allow for user authentication against corporate directories.		

No.		Requirements	Response Code	Comments
B	2	The solution must support integration with third-party multifactor solutions such as Cisco DUO, Okta's Auth0 and similar solutions.		
B	3	The solution must provide support for third-party secure identity and access solutions.		
B	4	The solution must provide role-based access controls (RBAC) for the granular definition of user privileges. Briefly explain how role-based access is achieved.		
Administration and Management				
C	1	The solution must support the creation and participation of both direct and indirect participation types.		
C	2	The solution should allow administrators to specify an institution type for each participant on the FPS, from a configurable list.		
C	3	The solution should allow administrators to suspend participants from participating on the FPS.		
C	4	The solution should allow administrators to remove or disable participants from participating on the FPS.		
C	5	The solution should allow administrators to view the activity under select user sessions.		
C	6	The solution must allow administrators to view an audit of detailed user activity.		
C	7	The solution must provide configurable alerts based on payment activity, liquidity levels, clearing and settlement failures, high transaction amounts etc. Provide more details on the alerts available on your proposed solution and their presentation types.		

No.		Requirements	Response Code	Comments
C	8	The solution must support up to a six-eyed process for select actions performed on the solutions administrative interface. Administrators should be able to configure which action requires four to six eyed levels of review.		
C	9	The solution must allow participants to only view payment and other information pertaining to their organization. Participants should not be allowed to view the information of other participants on the FPS.		
Clearing and Settlement				
D	1	The solution must finalize payments by utilizing a real-time settlement model. This should be achieved via collateralization using either a technical account held on the FPS itself or via a specific account on the existing RTGS. Explain how real-time settlement is achievable in the proposed solution.		
D	2	The solution must provide built-in liquidity management tools allowing participants to efficiently manage their liquidity on the FPS.		
D	3	The solution must provide built in liquidity related alerts that are triggered when liquidity thresholds are met or projected to be met.		
D	4	The solution must provide support to execute participant intraday liquidity loans.		
D	5	Payments made on the solution must be settled in a maximum average SLA of six seconds.		

No.		Requirements	Response Code	Comments
D	6	The solution must be able to support concurrent transactions initiated through all digital channels from every participant. Provide brief details on whether the proposed solution handles concurrent transactions, once the minimum computing requirements are met.		
D	7	The solution must be able to support peak processing times. Provide more details on the peak transaction processing figures that the proposed solution is able to facilitate once the minimum computing requirements are met.		
D	8	The solution must include support for merchant payments, provide tools to enable a seamless integration with point-of-sale devices and to manage multiple payment types through a single connection.		
D	9	The solution must provide a centralized proxy identifier (alias) database that facilitates the addressing of aliases based on a one-to-many design, against user accounts. Provide brief details on capabilities of the proposed solution's one-to-many proxy identifier (alias) database design.		
D	10	The solution must support multiple types of proxy identifiers (aliases). Specifically custom usernames or user handles, mobile numbers and email addresses must be supported.		
D	11	The solution must allow payments to also be made via standard bank account number and branch when applicable.		

No.		Requirements	Response Code	Comments
D	12	The solution must generate and support standardized QR codes. Provide details on the standards adhered to by the proposed solution as it relates to QR code generation.		
D	13	The solution must provide support for: • Merchant-presented static QR codes. • Merchant-presented dynamic QR codes. • Consumer-presented dynamic QR codes.		
D	14	The solution should provide built-in tools that would allow administrators to investigate failed or rejected transactions, providing details on the reason for failure or rejection.		
D	15	The solution should provide built-in tools that would allow administrators to monitor and control pending message queues.		
D	16	The solution should include a built-in refund and payment dispute review mechanism. Briefly explain how the proposed solution handles payment disputes and refunds.		
D	17	The system should include built in fraud detection and prevention capabilities. The proposed solution should be able to flag and place on hold, potentially fraudulent transactions for further review. Briefly explain how the proposed solution handles potentially fraudulent transactions and the tools available to assist in the recovery of funds should fraud occur.		

No.		Requirements	Response Code	Comments
D	18	Bidders must describe any enhanced KYC and security controls for alias and QR code usage in the proposed solution. Briefly describe how this enhanced controls should address the risks identified with alias and QR code usage in global FPS implementations.		
ISO20022 messaging				
E	1	The solution must provide support for ISO20022 Payments Clearing and Settlement (PACS) messages specifically pacs.008.001, pacs.004.001 and pacs.002.001.		
E	2	The solution must provide support for ISO20022 Payment Initiation (PAIN) messages specifically pain.013.001 and pain.014.001.		
E	3	The solution must provide support for ISO20022 Account Management (ACMT) messages specifically acmt.023.001 and acmt.024.001.		
E	4	The solution must provide support for ISO20022 Cash Management (CAMT) messages specifically camt.053.001, camt.052.001 and camt.054.001.		
Interoperability and Integrations				
F	1	The solution should be integrated with the existing Real-Time Gross Settlement (RTGS) system for liquidity management. Briefly detail what interface options are available for the proposed solution to integrate with an existing RTGS.		
F	2	The solution must be able to integrate with the existing Bahamian Dollar Digital Currency (SandDollar) allowing for seamless FPS to SandDollar wallet transactions and vice versa. Briefly detail what		

No.		Requirements	Response Code	Comments
		interface options are available for the proposed solution to achieve this.		
F	3	The solution must be able to integrate with other existing on and off premises payment systems. Briefly details the interface options and channels available for integration with other payment systems.		
F	4	The solution should support client APIs over HTTPS protocol. Provide more details on the API architectures supported by your proposed solution (REST, SOAP etc.).		
F	5	The solution must support idempotency and must provide protections against replay transactions across its integration interfaces.		
F	6	The solution should support integration with Security Information and Event Management systems.		
Cybersecurity				
G	1	The solution must adhere to local and global financial regulations including GDPR, GLBA, and/or PSD2 where applicable.		
G	2	The solution must align with ISO27001 and other applicable industry standards such as relevant portions NIST to an FPS.		
G	3	The solution should have redundancy to failover in case the primary solution goes down. The solution should allow for clustering and failover mechanisms to ensure continuous availability (99.99%) of the FPS solution. Describe how the desired availability can be achieved.		

No.		Requirements	Response Code	Comments
G	4	The vendor shall provide specific requirements for data backup and recovery procedures to ensure efficient disaster preparedness.		
G	5	The solution should support an active-active high availability infrastructure. Provide details, including network diagrams, on how the proposed solution can be configured to support this.		
G	6	The solution must support Adaptive Authentication to allow for risk-based authentication during high-risk transactions such as amount thresholds, unusual login, location verification.		
G	7	The solution must support Identity Assurance Level 2 (IAL2) in accordance with NIST SP 800-63A.		
G	8	The solution must enforce the principle of least privilege. This should also be enforceable at the central bank (system ownership) level and must utilize role-based access controls (RBAC).		
G	9	The solution must support secure audit trails and Write Once Read Many (WORM) storage capabilities.		
G	10	The solution must be able to function in a Zero Trust Network Architecture.		
G	11	The solution must support AES-256 encryption at a minimum standard of encryption.		
G	12	The solution must utilize TLS version 1.3 for all internal and external communication.		
G	13	The solution must be compatible with centralized authentication solutions/servers.		

No.		Requirements	Response Code	Comments
G	14	The solution must utilize token-based security for web applications, API security and JSON Web Tokens.		
G	15	The solution should employ DDoS mitigation technologies such as Web Application Firewalls (WAF), Traffic Filtering, Content Delivery Networks (CDN). Provide more details on how the proposed solution employs DDoS mitigation or is capable of integrating with DDoS solutions.		
Reporting				
H	1	The solution should provide standard out-of-the-box reports. Please list the standard reports included in the proposed solution.		
H	2	The solution must include built in comprehensive reporting functions for compliance and anti-money laundering (AML) audits.		
H	3	The solution must allow the Bank's administrators the ability to create custom reports. Define how custom reporting can be achieved in the proposed solution.		
H	4	The solution must provide reports on user access. Provide a listing of user access reports available on the proposed system. Auditing controls to track and measure user activity, access, etc.		
H	5	The solution must provide built in reports on participant activity, message flows. Provide a listing of participant activity and message flow reports available on the proposed solution.		
H	6	The solution must provide detailed participant statements. Participants should be able to generate statement reports via date range and other filters.		

No.		Requirements	Response Code	Comments
H	7	The solution must allow the Bank's administrators the ability to create custom reports. Define how custom reporting can be achieved in the proposed solution.		
H	8	The solution should provide customizable payment related dashboards. Briefly describe the dashboard options available on the proposed system.		
H	9	Administrators should be able to integrate the solution with third party reporting solutions e.g., Tableau, Power BI, Cognos etc.		
H	10	Users should be able to export all generated reports to .pdf, .csv and .xlsx files. Indicate if any other files types are supported.		
Billing				
I	1	The solution must allow administrators to define billing rates. Rates should be configurable primarily based on message types with additional options on volumes and flow direction (sender, receiver). Briefly explain how billing is managed in the proposed solution.		
I	2	The solution must automatically create invoices based on select billing cycles.		
I	3	The solution must have mechanisms to automatically collect due invoices on specified charge dates and billing cycles.		

User and Administrator Training				
L	1	In-person installation and administration training must be included in the solution delivery. The vendor must provide adequate and appropriate training to personnel identified by the Bank and incorporate certified training material and delivered by a certified trainer for an efficient operation of the system. The trainer should have at least two years of experience and have delivered training on the specific domain on which training is being delivered. The training programme should be well-defined and scoped. The outcome of the training should be first and second level certified users.		
L	2	A detailed training plan with specifications for training courses, schedules, site and requirements must be defined and delivered.		
Deliverables				
M	1	A detailed design of architecture of the solution must be provided, inclusive of data and network flows.		
M	2	Detailed configurations of the implementation must be provided.		
M	3	Day to Day operation of maintenance manual must be provided.		
M	4	End-user manuals must be provided.		
M	5	Backup and recovery procedures to ensure recoverability in the event of data loss or corruption.		

Warranty				
N	1	Warranty and annual maintenance contracts should include repair or replacement of faulty parts. The quoted hardware, if applicable, should have enough CPU, memory and other resources from to run the proposed solution for at least three (3) years. The quoted hardware, if applicable, must include a warranty of three (3) years and AMC should be eligible for another two (2) years.		

10.3 Hardware and Networking Requirements

10.3.1 Architecture

Provide an introductory narrative of how the proposed system architecture aligns with the overarching objectives and functional requirements of the FPS. It should cover the main features and benefits that distinguish your system. Your response should include a solution diagram, including network data flows, that depicts the overall design as well as hardware specifications if proposing an on-premises solution.

10.3.2 Operating System and Related Software

All proposals must specify the name and version number of the proposed operating system(s). In addition to the operating system(s), the following software packages, complete with any necessary licenses, must be specified with this proposal. The Bidder must state the application that is being used for each of the following:

- Desktop and server application update solution.
- Industry standard relational database management system.
- System and application backup and high availability.

10.3.3 Backup and Failover Solution

Bidders must specify the type of backup and solution redundancy that it can provide. If the Bank hosts the systems, the Bank will provide the backup solution as part of its standardized backup strategy. The Bidder must specify whether it has a cloud-based backup solution.

10.3.4 Capacity

Bidders must specify optimal server and storage capacity for the proposed solution, if offering an on-premise solution. Performance must be able to scale to meet the Bank's anticipated growth of 5% annually for at least 5 years. Identify exceptions.

10.3.5 Upgrades and Expansion

The proposed system must operate at no more than 35% of capacity (for CPU, memory, and I/O performance). It must have the capability to have a field upgrade to projected capacity without changing the initial CPU/disk equipment or other peripherals. The server hardware must support five (5) years of transactions based upon five percent (5%) per year increase to present transaction volumes. Bidders must describe the expandability of their proposed solution in terms of processors, memory, I/O, disk drives, and peripheral devices for both the on premise and SaaS solution.

10.3.6 Server Functionality

The Bank will provision all required hardware based on the Bidder's specifications and recommendation. Therefore, it is essential that Bidders provide a comprehensive outline of the server sizing and specifications required to support the optimal performance, scalability, and availability of the proposed FPS Solution.

11. Appendix D: Bidder Comments to Technical Specifications

[illegible]