



## ANNOUNCEMENT

### OPEN TENDER WITH THE REFERENCE NUMBER “CBA-2025-064” FOR ACQUISITION OF A REAL-TIME GROSS SETTLEMENT (RTGS) SYSTEM FOR THE NEEDS OF THE CENTRAL BANK OF THE REPUBLIC OF ARMENIA

#### ABOUT THE CLARIFICATION OF THE INVITATION Nr. 1

*This text of the announcement is published in accordance with Article 29 of the RA Law "On Procurements".*

The Central Bank of the Republic of Armenia (the CBA) presents below the questions and clarifications dated 26.01.2026 regarding the invitation to the procurement procedure with the code "CBA-2025-064" organized for the purpose of acquiring “A *REAL-TIME GROSS SETTLEMENT (RTGS) SYSTEM*” for the needs of the Central Bank of the Republic of Armenia.

#### 1. QUESTION FOR CLARIFICATION

Request to clarify whether "active clustering" for the Database implies Active-Active (e.g., Oracle RAC) or whether Active-Passive (e.g., SQL AlwaysOn Failover Cluster) is acceptable.

#### CLARIFICATION

Active-Passive clustering is acceptable. Active-Active configurations are not mandatory but may be considered.

#### 2. QUESTION FOR CLARIFICATION

Request to clarify whether the CBA has a preferred or mandatory Linux Distribution (e.g., Red Hat, SLES, Ubuntu) for the Kubernetes worker nodes and underlying infrastructure.

#### CLARIFICATION

The CBA does not mandate a specific Linux distribution. The CBA has no strict preferences regarding operating systems, technologies or licences. This is intentionally left to the vendor's



discretion. The CBA will evaluate the proposed solution comprehensively, including its architecture and ease of operation.

### **3. QUESTION FOR CLARIFICATION**

Request to clarify (Reference Point: Appendix 1 - Section 3.5, Section 11) on who will be responsible for the physical installation of hardware.

#### **CLARIFICATION**

Procurement, installation and maintenance of hardware is the responsibility of the CBA, while vendors are expected to support configuration and optimization activities as required.

### **4. QUESTION FOR CLARIFICATION**

Request to clarify whether there is an enterprise service bus (ESB) layer the Bidder must integrate with.

#### **CLARIFICATION**

The CBA does not currently operate a mandatory ESB layer for this solution. Vendors should describe integration capabilities and flexibility to connect with ESB if required in the future.

### **5. QUESTION FOR CLARIFICATION**

Request to clarify whether the CBA currently operates any message broker that the Bidder must integrate with, such as IBM MQ.

#### **CLARIFICATION**

The CBA does not currently operate IBM MQ or similar message brokers for RTGS. Vendors should propose their solution's integration capabilities with common message brokers if needed.

### **6. QUESTION FOR CLARIFICATION**

Request to clarify whether SAP BO requires direct read-access to the RTGS Production Database.



## **CLARIFICATION**

The SAP BO does not require direct read-access to the RTGS Production Database. Data should be provided through secure, controlled interfaces or reporting layers.

### **7. QUESTION FOR CLARIFICATION**

Request to clarify whether the CBA provides an enterprise ETL tool for data migration and/or feeding the DWH, or must the Vendor propose and license one.

## **CLARIFICATION**

The vendors must NOT propose an ETL solution as part of their offering for data migration. In essence, there is no planned data migration in the horizon. All transactions on the last day of the current RTGS system will be processed or rejected by the End of Day. In the first day of the new RTGS system, the payment engine will capture the new transactions only.

### **8. QUESTION FOR CLARIFICATION**

Request to clarify whether the Bidder should include the cost of Oracle/SQL Server licenses, or whether the CBA has an existing Enterprise Agreement.

## **CLARIFICATION**

In accordance with the “Cost & Licensing” section of the Terms of Reference (ToR), the Vendor shall provide a detailed description of all third-party licences and related support and maintenance costs required for the proposed solution, as part of the general information included in the proposal.

The Financial Proposal (Appendix 3) shall constitute the basis for the contractual agreement between the Parties.

### **9. QUESTION FOR CLARIFICATION**

If the Central Bank Gateway provides message translation and formatting services (including validation and mapping between legacy HT, ISO 20022-AM, and non-ISO XML via the Formatting component), request to confirm whether the RTGS Payment Engine is still required to natively



process multiple formats (ISO 20022-AM and non-ISO XML), or whether it can rely on the Gateway to deliver messages in a single normalized format (e.g., ISO 20022-AM) to RTGS.

### **CLARIFICATION**

The Central Bank Gateway will handle message translation and formatting, delivering messages in a single normalised format (ISO 20022-AM) to RTGS. However, for internal system-to-system communication non-standard message formats may be used where appropriate. During the transition period, legacy HT message formats (wrapped in XML envelope) may also be utilised to ensure continuity and smooth migration.

### **10. QUESTION FOR CLARIFICATION**

Reference is made to the statement: “When the counter payment is at the top of the queue, balance control may be bypassed according to defined rules.”

Request to clarify whether it means that the account balance may become negative after settling the offsetting transactions. If so, why are the account balances allowed to become negative only if the counter payment is at the top of the queue?

### **CLARIFICATION**

The requirement “When the counter payment is at the top of the queue, balance control may be bypassed according to the defined rules.” does not mean that an account balance is allowed to become negative, as cited in the requirement: “The system must include a configurable bilateral offsetting mechanism, ensuring that both payments are executed only if neither account becomes negative after settlement.”

The mentioned requirement refers to the need for an efficient offsetting mechanism. For instance, if there is a possibility of offsetting payments with non-negative balances afterwards, the system should perform it. If this condition is not met, the system should bypass the transactions at the top of the queue and search for possible offsetting pairs further down the queue. Consequently, if an eligible pair is found, its offsetting should be allowed only if it does not worsen the feasibility of settlement of earlier-arrived transactions. Therefore, bypassing is permitted only where it enhances the settlement feasibility of such earlier-arrived transactions.



## 11. QUESTION FOR CLARIFICATION

Reference is made to the statement: “The solution must log administrative actions and message filtering configurations.”

Request to clarify what is meant by “message filtering configurations”.

### CLARIFICATION

The requirement means that any configuration or change to filtering rules must be logged, including:

1. Creation, modification, or deletion of filtering rules
2. Activation/deactivation of filters
3. Who made the change and when
4. Which messages were affected by the filter
5. Outcomes triggered by the filter (rejected, routed, retried, etc.)

The filtering rules refer to configuration rules applied to filter or block specific message types or transactions based on defined criteria (e.g., participant, message type, amount thresholds).

## 12. QUESTION FOR CLARIFICATION

Reference is made to the statement: “Bidders must describe integration methods, supported message types, and how mismatches or alerts are reported and remediated.”

Request to clarify what is meant by “mismatches”. Whether this is referring to matching against the sanction list.

### CLARIFICATION

In this requirement, “mismatches and alerts” refer to non-compliances and exceptions raised by internal compliance and screening systems as a result of their checks. Note, that the RTGS Payment Engine does not perform compliance, AML, or sanctions matching. Its role is limited to:

1. Initiating requests to the relevant internal compliance and screening systems as part of transaction processing;
2. Receiving responses, alerts, or mismatch indicators from those systems;



3. Executing, suspending, or rejecting transactions based solely on the outcome received, in accordance with predefined rules.

Therefore, the bidder should only explain the integration methods, supported message types for requests and responses, and how the RTGS system acts upon those outcomes (e.g. hold, reject, resume processing).

### 13. QUESTION FOR CLARIFICATION

Reference is made to the statement: “Bidders must describe how the solution supports routing, transformation, and delivery of regulatory reports compliant with standards such as ADF, XBRL, and ISO 20022.”

Request to clarify whether this is referring to regulatory reports to be submitted by participants.

### CLARIFICATION

No, this requirement is about the reports generated by the RTGS system. The intent is to ensure that the RTGS solution includes built-in capabilities for structuring, transforming, and delivering its own reporting outputs in accordance with recognized standards such as ADF, XBRL, and ISO 20022, where required by regulatory, supervisory, or interoperability needs.

Currently, there is no need for the RTGS system to provide regulatory reports to other clearing and settlement schemas, therefore the requirement is forward-looking. It aims to ensure that, should the RTGS system be integrated in the future with other clearing, settlement, or financial market infrastructures, the solution can:

1. Adapt its reporting outputs to alternative or additional schemas;
2. Support configurable and versioned mappings between the RTGS internal data model and external reporting schemas;
3. Accommodate schema updates or new standards with minimal disruption, downtime, or manual intervention, and without requiring core system redevelopment.



## 14. QUESTION FOR CLARIFICATION

Reference is made to the statement: “The Payment Engine must support indirect participants operating through direct participants, ensuring that all transactions initiated by indirect entities are processed, settled, and reported under the account and responsibility of their sponsor.”

Request to clarify whether all payment instructions from an indirect participant are expected to be routed through its sponsor to the Payment Engine (i.e. indirect participant cannot send payment instructions directly to the Payment Engine).

### CLARIFICATION

Currently, the CBA do not have a specific operational model and a clearly defined policy for indirect participation, as there are no Indirect Participants in the system at this time. However, since their potential inclusion is being considered for the future, it's preferable that the suggested framework will be configurable in order to support two possible models.

**Model 1:** In this model, Indirect Participants can submit and receive payment instructions directly, without the involvement of a Direct Participant/sponsor. Indirect Participants do not hold their own settlement account; they are linked to the sponsoring Direct Participant's defined settlement account, and their settlements are executed on the sponsor's settlement account.

**Model 2:** In this model, Indirect Participants send payment orders to/receive payment orders via their sponsor, do not hold their own settlement account; they are linked to the sponsoring Direct Participant's defined settlement account, have settlements processed on the sponsor's settlement account, and remain under the sponsor's responsibility for all transactions sent or received on their behalf.

In both cases, the Direct Participant/sponsor agrees to represent the respective Indirect Participant based on the contractual terms between the Central Bank of Armenia and the Direct Participant/sponsor. The Payment Engine recognises Indirect Participants, allowing them to benefit from the protection of the settlement finality legal regulations.

## 15. QUESTION FOR CLARIFICATION

Request to clarify whether the current RTGS system was built and is owned by the CBA. If the system was developed by a vendor, request to provide additional information regarding the current vendor.



## CLARIFICATION

The current RTGS system was developed and is operated by CBA in collaboration with a local vendor. Details about the vendor cannot be disclosed at this stage.

### 16. QUESTION FOR CLARIFICATION

Request to confirm (Reference Point: Appendix 1 – Section 7.1 “Hardware Layer”) whether Bidders are not required to quote for the provisioning of hardware, and are only expected to provide the minimum specifications and recommended hardware requirements.

## CLARIFICATION

Yes, the Bidders are not required to quote for provisioning of physical hardware. The scope of this RFP only requires Bidders to provide:

- Minimum specifications for hardware sizing (e.g., CPU, memory, storage, network requirements).
- Recommended hardware configurations to ensure optimal performance, scalability, and high availability.

The CBA will be responsible for procuring and installing the physical infrastructure based on these specifications.

### 17. QUESTION FOR CLARIFICATION

Reference is made to the statement: “The Payment Engine must provide real-time monitoring and control of credit, liquidity, and operational exposures, supporting continuous oversight by the Central Bank. The system must prevent transactions that would exceed approved participant limits, including intraday credit, overdraft, and liquidity thresholds, and must automatically trigger alerts and blocking actions when such thresholds are reached.”

Request to explain what is meant by liquidity exposure, operational exposure, and liquidity threshold.

## CLARIFICATION

“Liquidity exposure, operational exposure in this context means liquidity risks, operational risks exposures.



The liquidity threshold means the minimum value of the account balance which cannot be reduced (it is an example of the liquidity risk parameter)

The solution must allow the Central Bank to define, adjust, and configure all relevant risk parameters and ensure real-time monitoring and control of credit, liquidity, and operational risks with defined alerts and/or blocking actions.”

### **18.QUESTION FOR CLARIFICATION**

Request to clarify what data warehouse technology or platform is currently used (e.g. Oracle Exadata, Teradata, IBM Db2 Warehouse).

#### **CLARIFICATION**

The organization does not use a single monolithic data-warehouse appliance. Instead, we operate a logical data warehouse implemented through SAP BusinessObjects Universes (IDT), which provide a unified semantic layer over multiple operational and analytical databases.

Reporting is delivered via SAP BusinessObjects using Information Design Tool (IDT) Universes that act as a logical data warehouse. These universes abstract and integrate data from multiple underlying databases. The physical data platforms currently include (Oracle, SQL Server, Clickhouse etc.), while transformations, calculations, and security are primarily handled in the semantic layer.

### **19.QUESTION FOR CLARIFICATION**

Request to clarify which ETL or data integration tools are utilized for data processing (e.g. Informatica PowerCenter, IBM DataStage, Talend).

#### **CLARIFICATION**

The CBA uses SAP DS.

### **20.QUESTION FOR CLARIFICATION**

Request to clarify what CI/CD platform is used for application build, testing, and deployment (e.g. Jenkins, GitLab).



### **CLARIFICATION**

The CBA does not mandate a specific CI/CD platform for this solution. However, the proposed solution must be compatible with industry-standard CI/CD tools.

### **21. QUESTION FOR CLARIFICATION**

Request to clarify which ITSM system is adopted for managing incidents, changes, problems, and service requests (e.g. ServiceNow, BMC Remedy, ServiceDesk).

### **CLARIFICATION**

The CBA uses ManageEngine Service Desk Plus.

### **22. QUESTION FOR CLARIFICATION**

Request to clarify what hardware security module (HSM) technology is in place for cryptographic key management (e.g. Thales Luna HSM, Utimaco HSM, Gemalto SafeNet HSM).

### **CLARIFICATION**

This information is not subject to disclosure. The Bidders should assume that the solution will use industry-standard HSM technology.

### **23. QUESTION FOR CLARIFICATION**

Request to clarify which SIEM platform is used for threat detection, log management, and security monitoring (e.g. Splunk Enterprise, Micro Focus ArcSight, Elastic SIEM).

### **CLARIFICATION**

This information is not subject to disclosure. The proposed solution must be capable of integrating with industry-standard platform.

### **24. QUESTION FOR CLARIFICATION**

Request to clarify which SOAR platform is used for automating security workflows and incident response (e.g. Splunk SOAR, Palo Alto Cortex XSOAR).



## **CLARIFICATION**

This information is not subject to disclosure. The proposed solution must be capable of integrating with industry-standard platform.

### **25.QUESTION FOR CLARIFICATION**

Request to clarify when referring to “ADF”, does it mean Oracle Application Development Framework, or is it referring to an internal, organization-specific application development framework?

## **CLARIFICATION**

In this context, ADF does not refer to Oracle Application Development Framework. It refers to Analytical Data Format, which is commonly used by central banks as a structured XML-based format for regulatory and supervisory reporting. Currently, CBA does not use ADF as a reporting format. However, if the proposed solution includes ADF reporting generation capabilities, this will be considered a value-added feature during evaluation.

### **26.QUESTION FOR CLARIFICATION**

During the preparation of the RFP response, it is noted that posted questions appear to reference both a license-based model and, in parallel, a more SaaS based approach for non-functionals and integration support. This creates uncertainty regarding the intended direction. A request is therefore made to schedule a clarification meeting to address these questions and define the appropriate approach.

## **CLARIFICATION**

During the tender process, all communication is conducted in writing.

The solution is expected to be perpetual license-based and deployed on the Central Bank premises. The Bidder is required to provide the complete solution, including all software components and licenses, in accordance with Section "Licensing Model and Flexibility" and Section "Cost & Licensing" of the RFP.



The solution must be delivered in a form that allows the Central Bank to maintain operational continuity in the event of vendor unavailability, which confirms that the system is expected to be deployed under the ownership and control of the Central Bank rather than operated as a public SaaS service.

System governance, operational control, and administrative authority remain with the Central Bank of Armenia, while non-functional requirements such as high availability, high throughput, uptime refer to the solution's technical capability. For instance, if the Central Bank defines KPIs the solution must be capable to meet them.

The Central Bank will be responsible for the overall operation, policy enforcement, and governance of the environment, while the Bidder provides the contracted software, technical support and maintenance. Stated approach is applicable to all requirements including those for integration support.

## **27. QUESTION FOR CLARIFICATION**

Request to confirm whether an indicative budget ceiling has been established for this tender, and if so, request to provide an approximate figure.

### **CLARIFICATION**

This procurement procedure is organized based on Article 15 point 6 of the RA Law “On Procurement”, which applies in cases where the Procuring Authority is unable to forecast (calculate) beforehand the amount of financial resources necessary for procurement. The Tender Invitation/RFP does not state an indicative budget ceiling for this procedure; therefore, requested figure cannot be provided.

## **28. QUESTION FOR CLARIFICATION**

Request to clarify, instead of separate RFP responses, whether the CBA will consider a combined response to the Messaging, Gateway and RTGS RFPs be delivered.

If so, whether the CBA will accept the combined response on 26 February 2026, which is the RTGS RFP response due date.



## CLARIFICATION

No. The Financial Messaging Service (*Tender Ref. #CBA-2025-062*) and the RTGS system (*Tender Ref. #CBA-2025-064*) are subject to separate procurement procedures, each governed by its own Request for Proposal, contractual framework, and evaluation process.

Proposals must be submitted strictly in accordance with the requirements and submission deadlines specified in the Invitation for each tender procedure.

Accordingly, any proposal submissions received after the deadline for submission specified in the relevant RFP will not be accepted or evaluated. On 26 February 2026, only proposals submitted under the RTGS RFP will be considered. Therefore, any submissions related to the Messaging Service RFP sent after the “Deadline for Submission of Proposals” specified in the relevant RFP will not be accepted or evaluated.

## 29.QUESTION FOR CLARIFICATION

Request to clarify:

1. Whether there are any preferred vendors with whom the CBA has previously worked and would like the Bidder to collaborate.
2. Whether the CBA prefers that the Bidder engage a third-party system integrator for the on-premises deployment of the RTGS solution.

## CLARIFICATION

There is no preferred vendor that the CBA is currently working with. System integration will be carried out primarily using the CBA's internal resources. The Bidder is expected to be capable of collaborating with other vendors providing their solutions.

*The Secretary of the Tender Committee of the Central Bank of the Republic of Armenia:*  
*Siran Yeganyan*

***Purchaser: The Central Bank of the Republic of Armenia***