

BANCO CENTRAL DE TIMOR-LESTE

**Request for Proposal
for the Credit Registry Information System (CRIS)**

Dili, Timor-Leste

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1. Introduction and Background

1.1 This Request for Proposal (RFP)

This RFP is issued by Banco Central de Timor-Leste (BCTL), the central bank of the Democratic Republic of Timor-Leste established under Law N.º 5/2011.

Credit reports contain sensitive data and thus require technical systems that ensure high levels of data security and accuracy without sacrificing availability of the information. The issues of accuracy, completeness of information, fairness to consumers and security are not just a concern of the Credit Registry; credit grantor participation is also required.

On 15 May 2009, the Banco Central de Timor-Leste (BCTL) issued Instruction No.3/2009 on the Establishment of a Credit Registry Information System (CRIS). The objective is to assist lending institutions to enhance the credit risk assessment for their lending decision making processes. Under the Instruction, the BCTL is responsible for managing the system and Participating Entities include licensed commercial banks and other lending institutions licensed by the BCTL.

The CRIS database contains both negative and positive information on individual borrowers, which may be either natural persons or legal persons/business entities. Each Participating Entity is required ensure that a written consent clause is obtained from each borrower or potential borrower before obtaining credit data about the borrower or submitting credit data about the borrower to CRIS.

The unique identification for customers in the CRIS system includes both Electoral Cards for citizens (Electoral Cards) or passport (for foreigners) and Tax Identification Numbers (TIN) for legal entity. These are used by participating entities to access the system online.

Each participating entity is required to submit details of new loans and updated credit information including overall credit disbursed together with a reconciliation of total credit obligation record in CRIS. All credit data related to borrowers needs to be retained in CRIS for at least five years from the date of the full repayment of the credit. After 5 years non-active accounts must be archived so that the system records only active accounts to facilitate monitoring.

The BCTL wishes to procure a new Credit Registry System that will be able to provide timely, accurate and reliable information regarding individual, MSMEs enterprises and corporate credit payment behaviour to deepen and extend banking services in Timor-Leste by strengthening the credit culture.

This RFP sets out the required functionality of CRIS and invites qualified companies to submit proposals and information about their products and services.

Respondents are requested to propose alternative or additional functionality based on their experience if they believe that this would enhance the system's ability to support the BCTL's initiative to provide Timor-Leste with a modern and functional credit registry system that incorporates international best practice.

1.2 Timor-Leste - Background

Economy

Timor-Leste is one of the poorest countries in the Asia-Pacific region, with a Gross Domestic Product per capita of USD3,704. It is also the fastest-growing economy in the Pacific region with growth rate of [9.5%], primarily due to substantial petroleum revenues.

Agriculture plays an important part in the non-oil economy, accounting for over 30 per cent of GDP and around 75 per cent of employment. The current main export apart from oil is coffee.

Transforming subsistence farming into an export-oriented industry is a challenge and will require the support of the financial sector in providing finance. Key crops such as coffee and vanilla, and potentially candlenut and palm oil, are being targeted for increased capital investment.

Financial system of Timor-Leste

The financial system of Timor-Leste consists of

- Banco Central de Timor-Leste: the central bank of Timor-Leste
- One locally incorporated bank (state-owned): Banco Nacional de Comercio de Timor-Leste

- Four branches of international commercial banks, ANZ Banking Group Limited (Australia), Caixa Geral de Depósitos (Portugal), PT Bank Mandiri (Persero) Tbk (Indonesia) and PT. Bank Rakyat Indonesia (Persero) Tbk (Indonesia)
- One other deposit taking institution (ODTI),
- Three general insurance companies,
- Nine money transfer operators, micro finances and several credit unions supplemented by self-help savings groups and informal lenders.

Banco Central de Timor-Leste, as the apex body in the financial system places high importance in advancing financial inclusion in the country.

Participating Entities in CRIS

According to Article 5 of Instruction № 03/2009, on the Establishment of a Credit Registry Information System (CRIS), each of the following entities is required to be a Participating Entity:

- a) All banks licensed by the BCTL to operate in Timor-Leste;
- b) Other financial institutions required to participate by the BCTL;
- c) Financial institutions that have made application and have been approved by the BCTL.

Currently, the Participating entities (PE) of CRIS comprise all commercial banks and one other deposit taking institution (ODTI).

Participating Entities are required to submit to the Credit Registry Information System Credit Data as required by Article 6 of of Instruction № 03/2009, on the Establishment of a Credit Registry Information System (CRIS) within the following times:

- a) New loans shall be submitted to the BPA within five days of disbursing the credit, and
- b) Within fifteen days of the end of each calendar month, each Participating Entity shall submit a statement summarizing the overall credit disbursed by the Participating Entity together with a reconciliation of the total Aggregate Credit Obligations recorded in the Credit Registry Information System.

2. Functional Requirements for CRIS

This section briefly describes BCTL's functional requirements for a Credit Registry System. Respondents should outline additional functionality that may be useful for future developments, based on best practice and their experience in other countries.

2.1 Objective

The objective of CRIS is to provide participating entities with information relating to existing and prospective borrowers' credit at other participating entities with the overall objective of improving the general quality of credit in Timor-Leste.

2.2 Broad Functional Areas

The following paragraphs briefly describe the main functional areas that BCTL believes should be covered by CRIS. **In addition to describing in detail how their proposed solutions cover these functional areas, respondents should feel free to comment on them, and to suggest other or additional ways of organising, analysing and displaying information that they feel may better suit BCTL's requirements. In particular, advanced functionality that would "future-proof" the proposed solution would be welcomed for consideration.**

2.2.1 Data Collection

The objective is to collect all data in electronic form, as far as possible, in order to avoid manual data input. At present, the primary credit data sources are credit information and demographic data submitted by participating entities, which include:

Credit data related to Borrowers as follows:

a) Natural Persons

- Borrowers full name;
- Date of birth;
- ID number¹
- Residential and emailing addresses;
- Location code (Aldeia level), per national location index
- Marital status;
- Spouse name and ID;
- Employment history;
- Date credit disbursed;
- Total amount of credit disbursed;
- Monthly payment;
- Date of last payment;
- Current outstanding balance;
- Guarantor/Avalist
- Credit classification by Sector²;
- Manner of payment;
- Type of Collateral/Security³
- Description of collateral
- Asset Classification⁴

b) For Other Legal Entities

- Borrowers legal name;
- Tax Identification Number (TIN);
- Name of the owners of company include ID number;
- Office Address;
- Telephone number;
- Location code (Aldeia/village level), per national location index
- List of shareholders;
- Full name of Director;
- Date credit disbursed;
- Total amount of credit disbursed;
- Monthly payment;
- Current outstanding balance;
- Credit classification by sector;
- Date of the last payment;
- Type of collateral/security;
- Guarantor/Avalist; and
- Type of credit

Secure Electronic Network

BCTL has established a secure private inter-bank telecommunications network. This data network is designed to support a range of inter-institution electronic applications, including the RTGS payment system, Automated Clearing house, National Card and Payment Switch, and it is intended that the new CRIS will also use the network.

The primary network is based on fibre optic technology, and is supported by a fully redundant microwave backup network with links to all banks and their DR sites. The network may be expanded

¹ The system accepts a range of personal identifiers, e.g. Bilhete de Identidade/cartão eleitoral, passports for foreigners, and TIN (Tax number) for businesses.

² Credit classification by sectors are Agriculture Water & Forestry; Industry; Manufacturing; Construction; Transport & Communication; Trade & Finance; Tourism; Services; Individuals; Others;

³ Current security identifiers are: Salary, Deposit/Negotiable Instruments, Vehicles, House, Hotels, Warehouse, Land, Others. The current system merely uses these identifiers. The proposed system should enable collateral to be precisely identified and registered.

⁴ Classifications are: Standard, Under Supervision, Sub Standard, Doubtful, Loss

to include other institutions in future as the need arises.

The Credit Registry concept centers on the data collection, storage, and dissemination of credit-related payment history and demographic information. The cornerstone of the data collection process will be a “data acquisition” module. This module would be custom built to accept electronic transmissions from the data providers. Additional modules including the search; input and output modules will also need to be customized built to disseminate the data from the credit registry to users.

The Credit Registry network infrastructure, as a minimum, must address the following requirements:

- Security;
- Availability;
- Scalability;
- Reporting clarity; and
- Manageability.

Respondents’ proposals must include the following functional and technical information:

- Data Model
- Operating system and database
- Functional attributes and capabilities
- Interface Specifications
- Operational Procedures
- User Acceptance Testing (UAT) plan, covering Central Bank and participant entity users.
- Documentation to be provided with system
- Security attributes and features
- Minimum hardware specifications
- Performance overview

The system software design description must include detailed descriptions of the Data Acquisition Module, Inquiry/search Module, Maintenance Module, Search Engine, Output Module and Accounting Module.

The system should allow for future enhancements such as the development and offering of a credit scoring service or fraud detection service.

Automatic Submission

It is intended that the new CRIS will have the ability to receive credit and demographic data automatically via the secure network.

Specifications for the direct integration with Participating Entities’ core banking systems should be provided, including reference to international standards being used, if applicable.

Migration of existing data

The project to implement the new CRIS must include the migration of all data in the existing CRIS, both current and archived for long-term retention. The current data is held in a Microsoft Access/SQL database, and covers

- Reporting bank
- Date Acct Opened
- Original Balance
- Monthly Payment
- Date Last Payment
- Balance
- Credit by Sector

- Manner of Payment
- Security
- Electoral No
- Asset Classification
- Name
- Electoral No
- Address
- Date of Birth
- City
- Marital Status
- Spouse Name
- Employer
- Telephone

The new database should broaden the functionality of the present system.

Reporting

The primary purpose of the credit registry is to assist banking authorities in discharging their responsibility of ensuring the safety of the banking sector. This is to be accomplished by creating relevant management reports from the credit data collected from commercial banks, which populate the registry database. These reports can also be analyzed to identify possible trends in banking sector credit weakness, growth and any other need, including statistical and economics reporting, that might be identified by the Central Bank.

The following list of reports that are required in CRIS which should include the capability to create graphs, charts or other vehicles that will allow for monitoring and recognition of trends and problem areas.

A monthly report that breaks out the number of credits in the Registry, in several categories.

Month	Total Customer records	# Direct Individual credits	# Indirect Individual credits	# Direct Business credits	# Indirect Business Credits	# Past due credits
Sept.	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx

This report could be expanded to break out these numbers, by individual bank.

A quarterly breakdown of the total credit accounts, by bank, along with the number of credit accounts reported to the Registry. The latter two numbers are necessary for monitoring purposes and can be used by the On-Site Examination teams to assist with verification that all required credits are being reported to the Registry:

Month	Bank Name	# credits	# reported credits
January 2017	(list of each commercial bank)		
Total			

A quarterly report for “non performing” credits, by summary for the complete database, by bank, by branch, cumulated by quarter and used for comparison purposes.

Activity report with Hit/Success Rate

A report that indicates monthly inquiry search activity, as noted below, in order to monitor activity and usage of the registry.

The hit rate is defined as the percentage of searches of the Credit Registry System that returned information on an outstanding credit. In the credit registry business, this is an important statistic. The information will help Central Bank personnel understand the effectiveness of the new registry in terms of information that is provided to banks on inquiry/searches. The higher the 'hit rate' the more information is being provided to banks.

A combined monthly report that reflects the number of searches requested in a monthly period.

Month	# Search requests	# Successful searches	# Unsuccessful searches	% Successful Searches
January 2017	xxxx	xxxx	xxxx	xx

The information, above, should include month/month differences as well as having proprietary reports, by bank, by branch. With the branch by branch report, lending activity can be provided and audited to determine if the registry is being checked on all credit applications. If their successful search % is lower than average that might indicate data input or transmission errors etc.

Proposals should include examples of other reports that are a standard part of the system, as well as describing any report writer functionality, if included.

2.2.2 Web based access

Web Based Access via the Central Bank network described above is to be the only method used for requesting and returning credit reports.

2.2.3 Reporting of loan provision

The amount of loan provisions, by commercial banks on credits, is critical to the health of banks supervised by the Central Bank. The higher the provisions, as measured against a commercial bank's assets, the greater the risk for possible failure.

The Credit Registry System should have the ability to allow the commercial banks to **report individual provisions in their regular submission of credit data**. This is to be reported with each monthly update of these credits. The Central Bank wishes to use this information, monthly, as it conducts risk based supervision of commercial banks. The Central Bank wishes to match the information, on a monthly basis, against assets and compared to previous periods (monthly, quarterly and year over year). The information is intended to be used as an 'early warning system' of potential bank problems and by bank inspection teams to verify the information is accurately reported. This information can be broken down by sector, region, industry, type of borrower etc. or utilized as the Central Bank's regulatory staff may determine.

2.2.4 Penalties and fines

The integrity of the proposed credit registry, and the trust afforded to it by users, is based on information being complete, comprehensive and factual. In order to ensure that is the case it is critical that all data suppliers are provided with the means to submit information on all credits with full and accurate detail.

The credit registry should be able to establish and implement a level of penalties, in the form of fines, to be levied when commercial banks fail to report required credit information to the credit registry or the reported information is inaccurate as determined in Section 36, of Regulation No. 2000/8 (Banking Regulation).

2.2.5 Simple Queries

CRIS users must have the ability to respond to requests for matches in the CRIS database on a wide variety of criteria such as borrower name, ID Number, TIN Number, director, shareholder, guarantor

and collateral.

In response CRIS should return a list of all entities matching the requested criteria and any links between them.

2.2.6 Statistical Reports

CRIS must have the ability to generate statistical reports automatically on all activities carried out within the CRIS application. The reports should cover, for example;

- Credit classification by sector,
- List of collateral,
- List of guarantors,
- Asset classification
- Separation between Demographics data and Credit Information,
- Record data every month & annually from each participant entities.
- Amount which disburse by each financial institution to the public
- Separated data between data of Company & Individual
- Separated between men and women / gender
- Item to monitoring & record user which access to the system every participant entities

3. Technical Considerations

CRIS will run on equipment installed at BCTL's head office. Its operators will be the staff of the Department of Financial System Supervision, all of whom are situated in the same location.

3.1 IT Environment

As a small organisation, BCTL has limited IT resources. The new CRIS must therefore be easy to install, operate and maintain. It should preferably run in a Windows Server environment and, if a database package is required, BCTL's preference is for SQL Server (or possibly an Open Source database).

Training may need to be given to backup persons in IT to resolve problems raised by participant entities.

3.2 Security

Security is paramount in the proposed system. Respondents must specify in detail the security capabilities and features of their solutions. At a minimum BCTL requires:

- Username and password required for all accesses. Strong passwords must be enforced.
- Two-factor authentication is required.
- The system must be able to constrain individual users to access it from specific workstations.
- The system must enable user profiles to be established and maintained defining what functions, screens, menus, etc. each user is permitted to access.
- All user activities must be logged including log-in (successful and unsuccessful), workstation ID, which screens are accessed, which data records are accessed, any modification to data, etc.
- Access to logs should be tightly restricted.
- System administrators and the system owner (who should hold the master password) must not have access to the database or analytical functions.

Respondents should outline the security features that are used to harden the proposed solution against cyber-attacks, preferably with reference to a recognised international standard for cyber security.

3.3 Definitions

“Credit Registry” is a database on demographic data and credit information, as well as on real financial engagements of persons applying for a loan at banks, branch of a foreign bank licensed by

the Banco Central de Timor-Leste or at other lending institutions.

“Credit Data” means the Credit Information and the Demographic Data relating to a Borrower;

“Demographic Data” means personal data relating to a Borrower;

4. Responses

4.1 Registration of Intention to Respond

Companies intending to respond to this RFP are requested to register their intention to submit a proposal with the contact below in order to be updated with clarifications and other communications. BCTL will not be responsible for providing additional information to respondents who do not register.

4.2 BCTL Contact

BCTL’s contact person for this RFP is Mrs. Nur-Aini Alkatiri email nur.alkatiri@bancocentral.tl with the subject line “RFP for CRIS”.

No other BCTL staff are to be approached about this RFP.

4.3 Clarification

All requests for further information or clarification of these requirements must be made in writing by email to the above-named contact person no later than two weeks prior to the deadline (“blackout period”) for submission given below. In fairness to all participants, questions received during the blackout period will not be answered.

The answers to each such request, if BCTL deems it material, will be anonymised if appropriate, and emailed as soon as practical to all companies which have registered as per 4.1 above, along with BCTL’s response (without identifying the source of the queries).

4.4 Submission of Responses

Responses to this RFP must be submitted as follows:

Electronic responses must be submitted, in Microsoft Office or PDF format, to the above-named contact person either by email or by courier on CD-ROM/DVD or flash memory device. Large responses may be sent in several emails, clearly identifying the correct sequence numbers of emails and attachments.

The deadline for submission is 4.00 p.m. (Timor-Leste time) on 8 November 2017.

All responses will be prepared at the respondents’ cost. BCTL will not reimburse any respondent for any costs incurred in preparing, submitting or demonstrating their responses.

4.5 Demonstrations

BCTL may be interested in seeing demonstrations of proposed systems, particularly if these can be conducted remotely. Respondents should state whether they are willing to travel to Dili to make presentations in person, or to offer a web-based presentation.

4.6 Proposals

Proposals should be complete and address all the issues raised in this RFP.

The minimum requirements for a proposal to be considered by the BCTL’s procurement committee are as follows:

- Executive summary (2 pages maximum)
- Description of proposed system
- Background and experience of Proposer
- Project plan, including activities, milestones, resources, timeline and deliverables.
- Point-by-point response to the requirements set out in this RFP, clearly stating whether or not the proposed solution meets the requirements and, broadly, how the proposed solution

meets the requirement.

- Comments on additional functionality offered by the proposed solution that may be required and/or appropriate for current and future developments.
- Proposed project team, with CVs and summary of relevant experience.
- Readiness of the Proposer to make a presentation of the solution in Dili.
- Financial proposal in United States dollars, including cost of application, project costs, estimated disbursements, annual maintenance costs for the first five years of operation, and other costs that may be relevant. The financial proposal should estimate the project costs for acquiring and implementing the proposed solution, as well as the estimated total cost of ownership of the solution over the first five years.
- Taxation. BCTL is required to deduct withholding tax (current rate = 10%) from the cost of professional services. Many countries (understood to include Portugal, USA, UK, Singapore, Australia and New Zealand) permit this deduction to be claimed as a deduction against local income taxes. Proposers are advised to ascertain the treatment of Timorese withholding tax in their home countries and add the estimated withholding taxes to their financial proposals where appropriate.