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**RENEW MICROFINANCE PVT. LTD.**

**RMFPL/ITD/01/2026/ 40**

**Date: 24 April 2026**

To,  
Chief Executive Officer  
Renew Microfinance Pvt. Ltd.  
Head Office: Thimphu

**NOTESHEET**

**Subject:** Approval of Scope of Work (SOW) for Infrastructure Modernization for Core Business Systems

Sir,

ITD is submitting this note to seek formal approval for the attached Scope of Work (SOW) regarding the upgrade and migration of our core server infrastructure hosting HRMS, CBS, and AMS applications.

Our current systems require a more robust, virtualized environment to ensure high performance and data security. The proposed SOW outlines a 30-day implementation plan using Windows Server 2022 and specialized RAID configurations to optimize database throughput while maintaining script-based redundancy.

ITD has proposed a budget of **Nu. 380,000 (Ngultrum Three Hundred Eighty Thousand only)**, which has been duly approved by the Management Committee.

Our key terms for awarding the work are as follows:

- **Award Method:** Lowest responsive bidder to ensure cost-effectiveness.
- **Timeline:** 30-day completion.
- **Support:** Includes a 1-year warranty and 180 hours of "Hypercare" period.

It is recommended that the attached SOW be approved for immediate release to potential bidders to initiate the Request for Quotation (RFQ) process.

Submitted for your approval.



रिनचन वान्ग्डी प्राइवेट लिमिटेड

**RENEW MICROFINANCE PVT. LTD.**

Rinchen Wangdi  
Acting Head, ITD

Approved by:  
Chief Executive Officer

*Proceed with priority  
and follow the procedure  
norms for this category of work.*



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**RENEW MICROFINANCE PVT. LTD.**

## Scope Of Work: Infrastructure Modernization for Core Business Systems

Renew Microfinance Pvt. Ltd.

Phendey Oudpel Lam,

Thimphu, Bhutan, 1404

### 1.0 Project Overview

This project involves the configuration and deployment of a new server infrastructure to host core applications (HRMS, CBS, and AMS). The goal is to establish a secure, high-performance virtualized environment with a focus on storage redundancy and scalability.

### 2.0 Deliverables

- **Configured Storage:** RAID arrays optimized for OS and Data performance.
- **Software Environment:** Windows Server 2022 Host (GUI) and segmented Virtual Machines.
- **Documentation:** Technical "As-Built" manual including IPs, credentials, and RAID maps.

### 3.0 Implementation and Configuration


#### 3.1 Storage Restoration and RAID Configuration

The Contractor shall resolve existing storage inconsistencies and establish a redundant foundation:

- **Controller Maintenance:** Access the LSI 3108 MegaRAID utility to clear "foreign" configurations and unlock inactive disks.
- **Array Configuration:**
  - **Virtual Drive 0 (RAID 1):** Mirror two (2) 900GB drives for the Host OS and high-security backup storage.
  - **Virtual Drive 1 (RAID 0):** Configure the 5.5TB volume as the primary data repository to maximize available capacity and speed.

*Note: RAID configuration is subject to change based on final disk inspection and total capacity. Should an ad-hoc decision be made to add disks for increased resilience, the project timeline will be adjusted to accommodate the additional procurement and installation time.*

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- **Redundancy Optimization:** Enable Auto-Rebuild at a 30% rate to ensure hardware-level resilience without compromising performance.
- **Scalability & Expansion:** The storage architecture must support future RAID expansion and disk additions without requiring a complete server re-configuration or OS re-installation.

### 3.2 Host Environment & Partitioning

The Contractor shall deploy a segmented file system optimized for database performance:

- **Operating System:** Install Windows Server 2022 (Standard) using appropriate LSI 3108 drivers.
- **System Partitioning (RAID 1):**
  - **C: Drive (150GB):** Dedicated to Windows OS and Hyper-V roles.
  - **D: Drive (~740GB):** Labeled "BANK\_VAULT" for localized redundancy.
- **Data Partitioning (5.5TB RAID 0):**
  - **E: Drive:** Initialized as GPT and formatted with ReFS (64k allocation) for optimal database throughput.
  - **Automated Redundancy:** The Contractor shall ensure the environment is prepared for off-hour script-based data transfers database from **E: Drive** to **D: Drive** (~740GB): Labeled "BANK\_VAULT" for localized redundancy.
  - **Automated Redundancy & Validation:** The Contractor shall configure and rigorously test the off-hour script-based data transfers. Successful completion of at least three (3) consecutive backup cycles must be demonstrated and logged prior to handover.

### 3.3 Virtualization and Migration

- **VM Deployment:** Create separate Virtual Machines for each application layer (App/Web & Database).

### 4.0 Award Criteria & Payment

- **Selection Process:** The contract will be awarded to the lowest responsive and responsible bidder meeting all technical requirements.

- **Budgetary Constraint:** Proposals exceeding the maximum allocated budget will be considered non-responsive and disqualified.
- **Payment Schedule:** Bidding firms shall propose their own payment schedule and milestones within their financial proposal for review and approval by the client.

#### **5.0 Project Timeline & Liquidated Damages**

- **Total Duration:** The project must be completed within 30 calendar days from the Notice to Proceed.
- **Milestones:** Hardware Setup (Week 1), VM Deployment (Week 2), Migration (Week 3), UAT/Handover (Week 4).

#### **6.0 Technical Support and Warranty**

- **Warranty:** 1-year warranty on all configuration work.
- **Hypercare:** 180 hours of immediate post-migration support for troubleshooting.
- **Response Time:** 4-hour response for critical (system down) issues.
- **Knowledge Transfer:** A one-day briefing for internal IT on MegaRAID, Hyper-V management, script verification/troubleshooting, and any other required knowledge.

#### **7.0 Glossary of Terms**

- **AMS/CBS/HRMS:** Asset Management, Core Banking, and Human Resource Systems.
- **GPT/ReFS:** Modern partitioning and file systems for high-capacity, high-performance data.
- **LSI 3108:** The hardware RAID controller governing the disk arrays.
- **RAID 0/1:** Methods of striping (speed) and mirroring (redundancy).

#### **8.0 Acceptance and Authorization**

For and on behalf of Renew Microfinance Private Limited:

\_\_\_\_\_ (Signature) Date: \_\_\_\_\_



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**RENEW MICROFINANCE PVT. LTD.**

For and on behalf of

\_\_\_\_\_ (Signature) Date: \_\_\_\_\_

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