Terms of Reference (ToR)
for
File Archiving and Backup Solution

Background:

With a view to empower its workforce, minimize data lose and downtime, maintain IT infrastructure, meet internal and external compliance requirements, the Bangladesh Red Crescent Society (BDRCS) is in a process to add a data backup and archiving solution for its departments, projects and employees .
For disaster recovery purposes, the Bangladesh Red Crescent Society (BDRCS) would benefit from using a centralized service that offers robust features specifically designed for backup and recovery scenarios. Here are some characteristics to consider when choosing a cloud service for disaster recovery:

- Data Redundancy and Durability: The file backup service should be hosted on a an on premise server with facility of disaster recovery on cloud to ensure data is protected against regional disasters.
- Automated Backup and Restore: The file backup service should support automated backup schedules and efficient restore processes. This ensures that critical data is backed up regularly and can be quickly restored in the event of a disaster.
- Security and Compliance: Ensure industry-standard security practices and compliance certifications relevant to the BDRCS's operations, such as ISO 27001 for information security management or HIPAA for healthcare data.
- Scalability: The file backup server should be able to scale resources up or down based on demand, allowing BDRCS to accommodate fluctuations in data storage requirements during disaster recovery scenarios.
- Cost-effectiveness: Consider the pricing structure of the file backup service, including storage costs, data transfer fees, and any additional charges for disaster recovery features. Look for a provider that offers transparent pricing and cost-effective solutions.
- Data Encryption: Ensure that the file backup service supports encryption both in transit and at rest to protect sensitive data from unauthorized access.
- The software would be cloud based and accessible from anywhere

Contents

1. Objectives:

The objective of this assignment is to develop the following:

  1.1. Simplify data management

  1.2. Optimize virtualization environments

  1.3. Rapidly expand storage capacity with minimal time investment in setup and maintenance

 1.4. At least 7 year limited warranty.

2. Scope of work

The design and development scope will be limited to the scope of work as identified in this ToR. The scope

of work can be categorized with the following tasks:

  a. **File backup solution:** The file backup service should be hosted on a an on premise server with facility of disaster recovery on cloud to ensure data is protected against regional disasters. The service should support automated backup schedules and efficient restore processes. This ensures that critical data is backed up regularly and can be quickly restored in the event of a disaster.
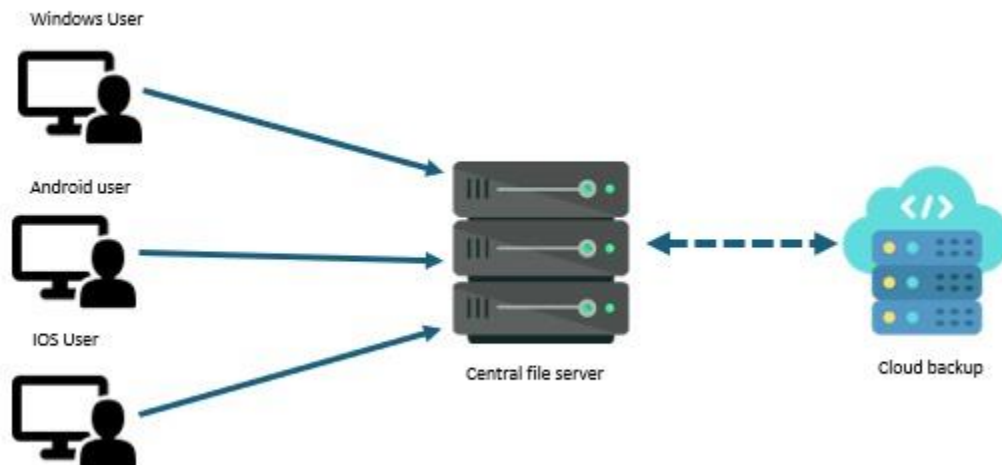
  b. **Develop file backup system application:** The application will be predominantly web based and also the application will have an instance or will be installed on usres' computer and or mobile devices. The app will also have dashboards for different level of users such as super admin, admin and general users. Access control mechanisms should be incorporated. The application should identify file types for ensuring security. The system should be capable of producing report from the dashboards.
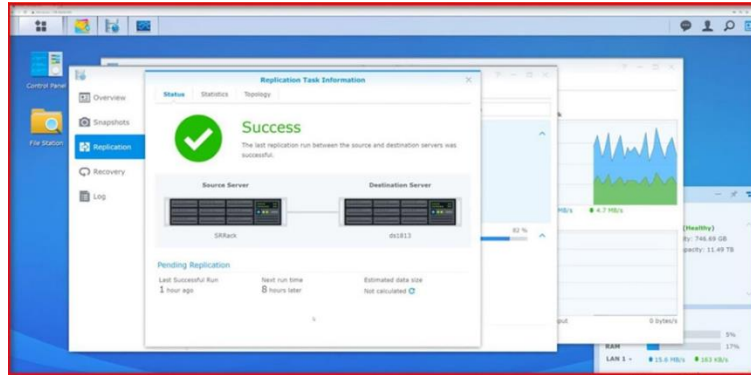
c. **Scalability**: The system should be able to scale resources up or down based on demand, allowing BDRCS to accommodate fluctuations in data storage requirements during disaster recovery scenarios.

d. **Solution Understanding and Customization:**

- Thoroughly understand BDRCS's requirements and customize the proposed solution accordingly.
- Provide a detailed deployment architecture for the proposed solution.
- Supply, Installation, and Commissioning:

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e. **Documentation:**

- Prepare comprehensive documentation of the implemented solution.

f. **Training and Certification:** Provide training and knowledge sharing of the solution for solution respective employees. i) End-to-End Solution: i. Provide a holistic end-to-end solution, including all required software, hardware, licenses, applications, and agents

g. **Policy Management and Reporting:**

Ensure the solution offers robust policy management and reporting capabilities

3. Technological specification

3.1. The required hardware specs may be found at the annex-1

3.2. The software should be cloud based

3.3. Must allow easy integration with existing business directory services

3.4. Must allow to integrate with active directory/azure active directory

3.5. Must be able to configure fine-grained access control and privilege settings.

3.6. Solution must be secure and must be capable to perform forensic investigation for any cyber Incident

3.7. The solution must cover minimum of 700 user and there all types of data

3.8. There should be Disaster recovery with the solution

3.9. Solution must be able to ensure file sharing over the internet is protected with a high level of

security.

3.10. Solution must allow configuration of application access for each individual account, user group and IP address

3.11. Implement robust monitoring tools to track backup status and performance, conducting regular audits and maintenance to ensure the integrity and reliability of backups.

3.12. Solution must be able to backup shared folders after minimum 5-minute intervals without consuming heavy resources

3.13. Must support various Operating Systems

3.14. The solution must support multi-tenant environments

3.15. The solution must allow for creation of a private cloud to enhance team cooperation and boost productivity.

3.16. The solution must allow access the data and files through a unified portal and allows cross-platform synchronization for you to access data from anywhere.

3.17. The solution must contain reporting capability.

3.18. The solution must enable to manage team monitor daily backup effortlessly.

3.19. The solution must be capable of sending notification to user in future .

4. Support for operation and maintenance:

4.1. Prepare final operational and technical documentation (which includes requirements documentation, technical documentation, source code, data flow diagrams) and provide with both hard copies and soft copies to BDRCS.

4.2. Provide full-fledged system support and maintenance for seven years.

5. System setup and hosting

The vendor will install and host the developed system in BDRCS cloud server.

6. Warranty (support & maintenance)

Vendor must provide all required technical support and maintenance after completion the development work. In this case, if any bug or error is found in the running application, the vendor must attend immediately and resolve the problem ensuring the smooth and uninterrupted running condition of the implemented software. The vendor also must provide all necessary guidance and support for resolving technical difficulties and any further requirement analysis based on user feedback.

7. Eligibility Criteria

The firm must prove that they have a solid technical background and operational strength to undertake and take this work forward without any hindrances. Firms must also have adequate technical ability, resources, human resources, and processes. As such, the following are defined as minimum eligibility criteria:

7.1. Must have Valid and up-to-date Trade license and TIN Certificate

7.2. Must have 05 years of general experience in ICT business in Bangladesh.

7.3. Must have a minimum of eight years' experience in custom software development (development, deployment, maintenance) . Preference will be given to those with Experience with NGOs/humanitarian sector.

7.4. Must have experience developing custom application.

7.5. Need to have competent full-time manpower/consultants in the team that includes Project Manager, System Analyst, Business Analyst, Solution Architect, Mobile Apps Developer (iOS and Android), Web System Development Expert, Security Expert, Database Expert, UX Expert, Infrastructure Expert, Data visualization Expert, Technical Writer and dedicated Support Engineers having individual experience in the relevant ICT area.

7.6. Bidder must provide sample Work Order

7.7. Bidder must have experience performing digital forensic (work completion certificates)

7.8. The solution must come with enterprise level security features.

8. Demo

The firm will have to participate in a demonstration session with a mock up or similar solution while participating the bid process. Similar experience in the software development arena would be a privilege.

9. Scoring criteria for technical and financial proposal

Items		Score
Technical proposal	Efficiency of the technical proposal	**50**
	Relevant documents and experience	
	Presentation with real time demo	
Financial Proposal	Financial Score	**50**
	Total Score	**100**

Annex 1
File Archive system: Hardware Specs

1. Server

Brand and model	Dell/HP/Asus or equivalent
Server type	Blade
Processor	1 x Intel Xeon E-2356G 3.2GHz, 12M Cache, 6C/12T, Turbo (80W)
Memory	1 x 32GB UDIMM, 3200MHz
Hard Disk	3 X 1.2TB Hard Drive SATA 12Gbps 10K RPM
Chipset	Intel C256
RAID Controller	Yes
Operating System	No Operating System
Network	Dual Port 1Gb On-Board LOM

Additional Features

Optical Drive	No
Lan/Nic	Dual Port 1Gb LOM
Power Supply	Fully Redundant Hotplug PSU, 600W
Drive Bays	Chassis with up to (8*2.5") Hot Plug Hard

Warranty and MAL

Warranty	03 years warranty with Manufacture Authorization Letter (MAL)

2. NAS

Brand and model	To be mentioned
Type	Blade
Processor	CPU Model: Intel Xeon D-1527 CPU Quantity: 1 CPU Architecture: 64-bit CPU Frequency: 4-core 2.2 (base) / 2.7 (turbo) GHz
Memory	System Memory: 8 GB DDR4 ECC UDIMM Memory Module Pre-installed: 8 GB (8 GB x 1) Total Memory Slots: 4 Maximum Memory Capacity: 64 GB (16 GB x 4)
Hard Disk	3.5" SATA HDD: 7 TB
Network	25GbE Network Interface Card 10GbE Network Interface Card
Mount	4-post 19" rack

Additional Features

Power Supply and Cable	150 W AC Input Power Voltage: 100V to 240V AC Power Frequency: 50/60 Hz, Single Phase Power Consumption: 68.68 W (Access) 34.78 W (HDD Hibernation)
Drive Bays	2 (NVMe & SATA)
Form Factor	1U
Others	Maximum Drive Bays with Expansion Unit: 16 (RX1217/RX1217RP x 1)

RJ-45 1GbE LAN Port: 4 (with Link Aggregation / Failover support)
USB 3.2 Gen 1 Port*: 2
Expansion Port: 1
PCIe Expansion: 1 x Gen3 x8 slot (x8 link)
Internal Drives: Btrfs, EXT4
External Drives: Btrfs, EXT4, EXT3, FAT, NTFS, HFS+, exFAT
Size (Height x Width x Depth): 44 mm x 480 mm x 518.6 mm
Weight: 8.16 kg
System Fan: 40 mm x 40 mm x 2 pcs
Fan Speed Mode: Full-Speed Mode, Cool Mode, Quiet Mode
Operating Temperature: 5°C to 35°C (40°F to 95°F)
Storage Temperature: -20°C to 60°C (-5°F to 140°F)
Relative Humidity: 5% to 95% RH

Warranty

| Warranty | 05 years warranty with Manufacture Authorization Letter (MAL) |