



Terms of Reference (TOR)

For the procurement of Network Attached Storage (NAS) System and Portable wi-fi router

On the “Digital Transformation” Project

Holder of the Project: Partnership for Pastoralist Development Association
(PAPDA)

August 2025

1. Background

Partnership for Pastoralists Development Association (PAPDA) is a legally registered humanitarian, non-profitmaking, non-religious, non-political, and non-governmental national organization striving to empower the livelihood of pastoralist communities in Ethiopia. PAPDA was founded in June 2006 and legally registered with the **Authority for Civil Society Organizations (ACSO)** under number **0355** and doing various humanitarian, emergency, and development activities in Ethiopia. The mission of the organization is to advance sustainable development by contributing to essential socio-economic services and strengthening community resilience through strategic partnerships.

As part of its ongoing **Digital Transformation Project**, PAPDA aims to strengthen its IT infrastructure to enhance operational efficiency, data security, and reliable service delivery. To meet the growing demands of its system and other essential applications, the organization is procuring a high-performance **Network Attached Storage (NAS)** solution to ensure secure, efficient, and scalable data management in compliance with industry's best practices and relevant legal and regulatory requirements and **portable 4G/5G LTE devices** to provide staff with on-the-go internet access, support multiple users, and ensure uninterrupted operations in both field and office settings.

Project Location: Ethiopia

Funding Partner: BROT (Bread for the World)

Project duration: Two Years

Start date: April 1, 2024

End date: March 31, 2026

2. Technical Specifications

Network Attached Storage (NAS) System

1. Purpose

This document outlines the minimum technical specifications for a Network Attached Storage (NAS) system required for our organization. The NAS will serve as a centralized file server, data backup repository, and storage for our new ERP system and other critical applications. The equipment supplied must be new, from a reputable manufacturer, and meet or exceed all specifications listed below.

2. General Requirements

- **Manufacturer:** Reputable and established brand (e.g., Synology, QNAP, or equivalent).
- **Condition:** Must be brand new, in original, unopened packaging.
- **Warranty:** A minimum of a three (3) year manufacturer's warranty on the NAS chassis and a five (5) year warranty on the supplied hard drives.

3. Detailed Technical Specifications

Component	Minimum Requirement
Form Factor	Desktop / Tower
CPU	Quad-Core, 2.0 GHz or higher
RAM	8 GB DDR4, expandable to at least 16 GB
Drive Bays	Minimum of four (4) hot-swappable bays

Included Hard Drives	4 x 12 TB NAS-grade Hard Drives (e.g., Seagate IronWolf Pro, WD Red Pro)
Total Raw Storage	48 TB
RAID Support	Must support RAID 0, 1, 5, 6, 10, and SHR (or equivalent)
Network Interface	Minimum of two (2) 1GbE RJ45 LAN Ports, with Link Aggregation support
External Ports	Minimum of two (2) USB 3.2 Gen 1 ports
File System Support	Btrfs and EXT4
Key Software Features	Must natively support: • SMB, AFP, NFS, FTP, and WebDAV file protocols • Snapshot Replication for point-in-time recovery • Centralized backup solutions for PCs and servers • User, group, and shared folder management with ACL
Quantity	1

Portable Wi-Fi Hotspots

- **Network:** 4G/5G LTE, unlocked
- **Connectivity:** Wi-Fi 5/6 (802.11ac) or higher, supports 10+ devices
- **Battery:** Minimum 8 hours of active use
- **Warranty:** 1 year

- **Quantity:** 5

4. Submission Requirements

Vendors submitting a quotation must provide the following:

1. **A detailed quotation** itemizing the cost for the NAS chassis and the four hard drives separately. All costs must be in ETB and inclusive of any applicable taxes.
2. **A technical datasheet** or product specification sheet for the proposed NAS model and hard drive models. This must clearly show compliance with all specifications listed above.
3. **Information on the warranty period** for all supplied components.