

# Glotrade Platform - Monthly Hosting Cost Breakdown

Prepared for Client Review  
*Production-Ready Infrastructure Estimates*

## Executive Summary

This document provides detailed monthly hosting costs for the Glotrade International Platform across two growth phases. All estimates are based on current market rates and include production-grade services with proper redundancy, backups, and monitoring.

### Quick Overview

User Range	Monthly Cost	Cost Per User	Status
500-1,000 users	\$245-285/month	\$0.29-0.49	Launch Phase
1,000-5,000 users	\$340-420/month	\$0.07-0.42	Growth Phase

## Phase 1: Launch (500-1,000 Users)

☐ Total Monthly Cost: \$245-285/month

### Detailed Breakdown

#### 1. Backend Server (Render.com) - \$85/month

- **Plan:** Pro (4GB RAM, 2 CPU cores)
- **What it includes:**
  - Hosts your 325+ API endpoints
  - Runs GDIP automated cron jobs (daily cycles)
  - Handles wallet transactions and payments
  - 24/7 uptime (no sleeping)
  - Automatic SSL certificates
  - Custom domain support
- **Why this tier:**
  - Handles 500-1,000 concurrent users comfortably
  - Sufficient memory for your 31 database models
  - Runs background jobs without performance issues

#### 2. Database (MongoDB Atlas) - \$57/month

- **Plan:** M10 Shared Cluster
- **Specifications:**
  - 10GB storage (expandable)
  - 2GB RAM
  - Dedicated cluster resources
- **What it includes:**
  - Automated daily backups (retain 2 days)
  - Point-in-time recovery
  - 99.95% uptime SLA
  - Monitoring and alerting
  - Supports all 31 data models

- **Why this tier:**
  - Production-grade reliability
  - Automated backups protect your data
  - Can handle 1,000+ users easily
  - Professional support included

### 3. **Frontend Hosting (Vercel) - \$20/month**

- **Plan:** Pro
- **What it includes:**
  - Hosts all 68 frontend pages
  - Global CDN (Content Delivery Network)
  - 1TB bandwidth/month
  - Automatic HTTPS
  - Analytics dashboard
  - Preview deployments
  - Password protection
- **Why this tier:**
  - Free tier lacks production features
  - Pro tier required for custom domains
  - Better performance globally

### 4. **Redis Cache (Upstash) - \$15-20/month**

- **Plan:** Pay-as-you-go
- **What it includes:**
  - Session management
  - Rate limiting data
  - Temporary data caching
  - 99.99% uptime
- **Usage estimate:** ~1-2 million commands/month
- **Why needed:**
  - Speeds up frequent database queries
  - Manages user sessions efficiently
  - Enables rate limiting (300 requests/minute)

### 5. **File Storage (Cloudflare R2) - \$10-15/month**

- **What's stored:**
  - Product images
  - User avatars
  - Business documents
  - Insurance certificates
  - KYC documents
- **Pricing:**
  - First 10GB free
  - \$0.015/GB thereafter
  - \$0.36 per million reads
- **Estimated usage:** 15-25GB with 500-1,000 users
- **Why Cloudflare R2:**
  - No egress fees (bandwidth is free)
  - Fast global delivery
  - Cost-effective vs AWS S3

### 6. **Email Service (SendGrid) - \$15/month**

- **Plan:** Essentials (40,000 emails/month)
- **What it handles:**
  - Order confirmations
  - Password resets
  - GDIP investment notifications
  - Commission alerts
  - Marketing emails

- **Average usage:** ~20-30 emails per user/month = 15,000-30,000 emails
- **Why NOT Gmail:**
  - Gmail has 500/day limit (15,000/month max)
  - Poor deliverability for bulk emails
  - Account suspension risk
  - No analytics or tracking

#### 7. Domain & DNS - \$12/year (~\$1/month)

- Domain registration (e.g., [glotrade.com](#))
- Cloudflare DNS (free tier)
- SSL certificates (free via Render/Vercel)

#### 8. Monitoring & Error Tracking - \$0-30/month

- **Sentry (Error Tracking):** Free tier (5,000 errors/month)
- **Render Metrics:** Included free
- **Uptime monitoring:** Free (UptimeRobot)
- **Optional:** Datadog/New Relic (\$30/month) for advanced monitoring

#### 9. Buffer for Overages - \$30-40/month

- Traffic spikes during promotions
- Unexpected email volume
- Additional storage needs
- Payment webhook retries

### Phase 1 Cost Summary Table

Service	Provider	Plan	Monthly Cost
Backend Server	Render	Pro (4GB)	\$85
Database	MongoDB Atlas	M10	\$57
Frontend	Vercel	Pro	\$20
Redis Cache	Upstash	Pay-as-you-go	\$15-20
File Storage	Cloudflare R2	Usage-based	\$10-15
Email Service	SendGrid	Essentials	\$15
Domain & DNS	Various	Annual	\$1
Monitoring	Sentry	Free tier	\$0-30
Buffer	-	-	\$30-40
<b>TOTAL</b>			<b>\$245-285</b>

### What This Supports

- ▣ 500-1,000 active users
- ▣ All 325+ API endpoints
- ▣ All 68 frontend pages
- ▣ GDIP automated cycles
- ▣ Wallet transactions
- ▣ Payment processing
- ▣ Real-time notifications
- ▣ Email delivery
- ▣ Daily backups
- ▣ 99.9%+ uptime

### ~~Phase 2: Growth (1,000-5,000 Users)~~