Monitor competitor pricing and public procurement records automatically

> *“We spend hours every week manually checking competitor websites and government bidding portals for price changes and new opportunities.”*

Category: operations **Setup Time:** ~35 minutes **Estimated Hours Saved:** 4 hrs/week **Direct Software Cost:** $0 / month

SOLUTION SUMMARY

Deploy a scheduled headless web scraping script on a low-cost virtual private server (VPS) to monitor competitor prices and public contract announcements 24/7. Using Python (Playwright or BeautifulSoup), the scraper checks target websites on a scheduled timer, extracts published rates or new permit filings, compares the data against yesterday's snapshot, and sends an immediate alert to your team when significant changes occur. It gives you real-time market intelligence without manual browsing drag.

REQUIRED TOOLS & DIRECT WHOLESALE UTILITIES

- **Playwright:** **(Free Tier / Wholesale)**
- **Hetzner / DigitalOcean VPS:** **(paid)**

STEP-BY-STEP APPLICATION INSTRUCTIONS

1. **Build Headless Extraction Script**
   Write a Playwright or BeautifulSoup script to navigate target product catalogs or public bid boards and extract structured prices, titles, and dates.

2. **Store Historical Snapshots in Database**
   Log extracted items into a local SQLite or PostgreSQL database with timestamps to calculate day-over-day price variance.

3. **Configure Variance Alert Logic**
   Set up rules to trigger an alert if a competitor lowers a price by >5% or if a new solicitation matching your NAICS code is published.

4. **Schedule Daily Cron Execution and Alerts**
   Set a Linux cron job to run the script every morning at 6:00 AM and deliver an executive summary to your Slack, Telegram, or email inbox.

5-POINT QUALITY VERIFICATION PROTOCOL

[ ] **Carrier & Webhook Test:** Confirm webhook listener receives test payload and returns HTTP 200 within 500ms.

[ ] **End-to-End Simulation:** Execute live test event from personal device and verify SMS/email delivery.

[ ] **Anti-Spam & Rate Limit Check:** Verify repeated submissions do not trigger duplicate messages to clients.

[ ] **Direct Ownership Audit:** Confirm all API keys, accounts, and credentials belong directly to your practice.

[ ] **Staff Notification Verification:** Verify practice manager/receptionist receives real-time push alert with dial link.

FREQUENTLY ASKED QUESTIONS

Q: Is web scraping legal for tracking competitor prices and public records?

A: Yes. Scraping publicly available data (prices, public government notices) without logging behind password paywalls is standard market intelligence practice, provided you respect site rate limits.

Q: How do we prevent our scraper from breaking when a competitor redesigns their site?

A: Use robust semantic selectors, fallback text matchers, and automated notification alerts when a scraping job fails to extract target fields.

Q: Can the scraper monitor websites that require JavaScript rendering?

A: Yes. Playwright runs a real headless Chromium browser that executes client-side JavaScript, single-page applications, and interactive tables.