Business Requirements Document (BRD): PipeBridge Web Upgrade

# 1. Executive Summary

Upgrade sistem PipeBridge dari aplikasi desktop (C#) menjadi web-based stack (Node.js, PostgreSQL, Bootstrap), dengan integrasi WebSocket Refinitiv TREP (tr\_json2). Sistem akan menyediakan API endpoint untuk keperluan real-time data display, chart visualization, dan format DataPool Ticker untuk Vizrt.

# 2. Scope of Work

✅ In Scope:

* - Migrasi dari C# ke Web UI (Node.js + PostgreSQL)  
  - WebSocket client untuk TREP Refinitiv  
  - API endpoint real-time & historical (weekly/monthly)  
  - Dashboard stock list & history (dengan modal Add/Edit/Delete)  
  - Ekspor data format DataPool (Ticker Vizrt)  
  - Server status monitoring (MAIN/BACKUP/CLIENT)

❌ Out of Scope:

* - Vizrt template setup  
  - Pilot Edge integration (user hanya konsumsi endpoint)  
  - Mobile frontend (fokus saat ini: desktop)

# 3. Core Modules

|  |  |
| --- | --- |
| Module | Function |
| WebSocket Client | Ambil data real-time dari Refinitiv (TREP) |
| API Server (Express) | Menyediakan endpoint JSON dan text-format |
| Dashboard EJS | Tampilkan tabel data saham dan kontrol |
| Ticker Exporter | Format output .txt untuk Vizrt Ticker |
| Server Monitor | Pantau status server MAIN/BACKUP/CLIENT |
| Aggregator | Ringkas data mingguan/bulanan untuk chart |

# 4. Entity Relationship Diagram (Simplified)

Table: stock\_items  
- id (PK)  
- ric  
- custom\_name  
- last\_price  
- net\_change  
- pct\_change  
- bid  
- ask  
- volume  
- active\_ticker  
- updated\_at

Table: stock\_history  
- id (PK)  
- ric  
- price  
- volume  
- source  
- created\_at

Table: server\_status  
- name  
- status  
- is\_active  
- last\_check

# 5. Data Flow

[Refinitiv WebSocket] → [client-refinitiv.js] → [Parse & Filter] → [Insert to DB] → [Serve via API / Ticker] → [Display on dashboard / Vizrt]

# 6. Aggregated API Format

Contoh: GET /api/weekly?ric=BBRI.JK&end=2025-09-14

Response: "1210|1212|1205|1203|1206|1215|1217|..."

# 7. Ticker Data Format (Vizrt DataPool)

STOCK[\_ADRO.JK]={{shortname=Adaro Energy;price=1255;change=10;condition=0;percent=0.8%;volume=39.67 m;stockcode=\_ADARO ENERGY;}}