

# Bilko BUG-005 — revenueMTD / credit-note documentType + RLS migration landmine

## Bilko BUG-005 — revenueMTD negative (credit-note documentType + RLS migration landmine)

**MC:** #103001 (child #102887) | **Fixed:** 2026-06-05 | **Tag:** v0.2.18 / PR #255

### Symptom

Dashboard KPI `revenueMTD` showed -457.50 on bilko-demo. CEO-visible.

### Root cause (two layers)

- Write-side:** `InvoiceService.createCreditNote` insert omitted `documentType`. The `Invoices.documentType` column has no Kotlin `.default`, so the PG column default `'standard'` applied. Every credit note was stored as STANDARD with a negative amount. The v0.2.17 read-side fix (`ReportService.getRevenueForPeriod` excludes CREDIT\_NOTE) therefore could not exclude them.
- Backfill blocked by RLS:** migration V65 (`UPDATE invoices SET document_type='credit_note' WHERE document_type='standard' AND invoice_number LIKE 'CN-%'`) recorded `success=t` but affected **0 rows**. The `org_isolation` RLS policy returns FALSE when `app.current_org_id` is unset; Flyway runs as `bilko` with no org GUC, so RLS hid every row. No SQL error → Flyway "succeeded".

# Fix

- PR #255: `createCreditNote` now sets `it[Invoices.documentType] = InvoiceDocumentType.CREDIT_NOTE`.
- Historical backfill applied on the serving DB (tribal-sign-487920-k0:europa-north1:bilko-demo-db) via `ALTER TABLE invoices NO FORCE ROW LEVEL SECURITY` (table owner) → UPDATE (5 rows) → COMMIT → `FORCE ROW LEVEL SECURITY` restored.

## Verification (Proveo independent PASS, live)

revenueMTD 375.00 (was -457.50); CN-2026-001..007 all documentType=credit\_note; freshly created CN is credit\_note; INV-2026-001 stays standard. Evidence: /tmp/verify-103001/proveo-validation.md.

## Reusable lessons

- **Data-backfill migrations on RLS tables must bypass RLS** (`ALTER TABLE ... NO FORCE ROW LEVEL SECURITY` wrapper) or they silently no-op while reporting success. Verify by ROW COUNT, not Flyway success.
- **Verify by live outcome, not green build** — every CI/deploy signal said "shipped" while live data was wrong.
- `cloudbuild.yaml` coverage `gsutil-upload` step makes every demo deploy report FAILURE despite success (follow-up).

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