

Grid Data Conversion Testing Tool

Prove the go-live before you switch — the incumbent MDMS and GDMP in parallel, every difference explained and every decision signed.

The Grid Data Conversion Testing Tool (GDCT) proves a Grid Data Management Platform go-live. When GDMP is deployed beside a utility's production MDMS, the two run in parallel on the same inputs, and GDCT shows — output by output, account by account — whether switching would change bills, settlement, customer data, or operations in any way the utility has not agreed to. Most differences in a parallel run come from setup rather than from MDM logic, and the incumbent is usually a black box. GDCT controls the first and opens the second, so the run ends in a signed decision instead of an argument.

Output-first

contract agreed before the run

Identical inputs

to both systems, archived

Zero unexplained

the exit test

Signed off

billing · finance · regulatory

KEY FEATURES

Output contract

Every consumer of meter data — billing, settlement, customer, operational, regulatory — listed with an owner, a tolerance, and an exit criterion, locked before anything is compared.

Identical inputs

Head-end data delivered identically to both systems and archived, with daily parity reports — so any day can be replayed and input differences are never mistaken for logic.

Setup reconciled first

Master data, conventions, VEE rules, and quality codes reconciled and mapped one by one, and configuration frozen or versioned — before a single read is compared.

Top-down comparison

Both systems compared at the same cut-off: billing determinants and the money on the bill first, then daily usage, intervals, VEE outcomes, timeliness, and interface files.

Difference register

Every difference carries exactly one disposition, its evidence, and its approvals. The exit test is zero unexplained differences — not zero differences.

Patterns, not piles

Recurring differences are recognized as patterns and a disposition is suggested for the analyst to confirm, so many differences with one cause are handled once.

Estimation as its own test

Actual reads must match. Estimates are judged separately: known reads are hidden from both systems and each one's estimates are measured against the truth, bias first.

Opening the black box

The incumbent's estimation and validation rules are inferred from its own outputs and shown in plain language — so each of its estimates can be judged and explained.

Manual edits by policy

Edits made in the incumbent during the run are either mirrored into GDMP or compared as a separate group — chosen up front, never handled ad hoc.

Scripted scenarios

The situations that break conversions — resends, late data, rollovers, reverse flow, meter exchanges, move-ins and move-outs, daylight-saving days, month-end — injected into both systems and verified.

Readiness & sign-off

Exit criteria evaluated daily with a readiness projection; sign-off by billing, finance, and regulatory owners; and a tamper-evident evidence pack of the whole run.

AI analyst assistant

Optional and read-only: explains a difference, suggests its disposition, answers plain-English questions, and drafts the daily summary — with customer data masked.

EVERY DIFFERENCE, ONE DISPOSITION

Input difference	The two systems received different data. Fix the feed or replay the day, and re-run.
Setup difference	Master data, configuration, a convention, or a mapping does not match. Fix it, and prove the difference is gone.
Agreed method difference	The systems differ by design, within the output's tolerance. Approved by the VEE specialist, with the proof.
Defect in the current system	GDMP is more correct — but bills would still change. The utility decides: reproduce the old behavior, or accept the change with customer communication and regulatory sign-off.
Defect in the new system	GDMP is wrong. Raised, fixed, and re-run until the difference is gone.

HOW A PARALLEL RUN WORKS

- 1 **Agree the outputs** — owners set tolerances and exit criteria in the output contract, and lock it.
- 2 **Pass the gates** — identical inputs, reconciled master data, mapped rules and codes, agreed conventions, frozen configuration, a chosen edit policy, and a frozen sample and run period — each checked by the tool and approved by its owner.
- 3 **Stabilize** — setup differences are found, fixed, and re-run until they trend to zero, and the scenarios are injected.
- 4 **Prove** — a daily cycle at a fixed cut-off — compare, classify, decide, report — across multiple full billing cycles, including a month-end and a daylight-saving change.
- 5 **Sign off** — exit criteria met, every decision signed, and the evidence pack sealed for cutover.

USE CASES

- **MDMS replacement** — a defensible go-live decision when GDMP replaces an incumbent MDMS.
- **Bill protection** — every account's determinants and bill amount compared before cutover, not discovered after it.
- **Regulator and auditor confidence** — evidence that bills did not change — or that every change was decided and signed.
- **A shorter stabilization** — setup problems separated from logic differences early, so the proving run starts clean.
- **Hypercare** — continued comparison after cutover while the incumbent stays available read-only.

BETTER TOGETHER

GDCT is how a Grid Data Management Platform deployment proves itself: GDMP already records the rule, method, and replaced value behind each of its values, so its side of every difference arrives explained. Single sign-on and notifications come through the Grid Data Platform Manager.