

Grid Data Simulator

A whole utility from a polygon — delivered in your MDMS's own data model, at utility scale.

Grid Data Simulator (GDS) builds the utility your systems need to be tested against. Draw a territory on the map — or search a place, or describe it in plain English — and it generates a complete synthetic utility: electric, gas, and water networks from substation to meter, premises and service points on real addresses, partners, contracts and service agreements, meters and their channels, and interval, register, and SCADA telemetry. Then it delivers that utility the way the real estate would — master data in the Grid Data Management Platform's own data model, reads on real cadences, CIS lifecycle transactions, outages, and a full command-and-control round trip — to each system that expects it. Every scenario is reproducible.

Utility scale

whole territories, every meter

Streaming

reads on real cadences

GDM-native

master data · history

Multi-commodity

electric · gas · water

KEY FEATURES

A utility from a polygon

Draw territories, search a place or ZIP code, or describe the scenario in plain English and review the draft the AI assistant prepares. Premises land on real buildings, assets on real roads — urban, suburban, or rural density.

GDM's data model, natively

Master data delivered in the Grid Data Management Platform's own data model, with every attribute dated and every change carrying its history.

Integration-ready master data

Deliver per entity or per service point; target GDM or SAP, with profile sync for SAP; stamp every message with the source system a CI/CD pipeline expects.

Every system its own feed

Meter master data and reads to GDM, asset data and SCADA to Enhanced Analytics, commands to the MDMS — each delivered to the system that expects it.

Telemetry feeds & historical loads

AMI cohorts on staggered cadences with their own channels and lag; SCADA on its own clock; meters silent under outages. Historical backfills of any length.

Realism on demand

Storms with realistic outages and restoration times; DER and EV adoption curves; VEE fault patterns with an answer key of expected findings; and dirty data — duplicates, drift, late and out-of-order reads.

Actions & lifecycle events

Change one record and publish exactly the transaction a CIS would send: meter exchange, reversal, removal and install, move-out and move-in, attribute changes — each with the reads that follow, in a replayable history.

Command & Control

The full CIS → MDMS → HES round trip — disconnect, reconnect, on-demand read, power status, ping — now, at a time, or recurring, with the simulator on both ends and the MDMS under test in the middle.

Operable at scale

Long-running jobs can be paused and canceled, deliveries run side by side, and the largest territories complete reliably.

Deploys like the family

Deployed and upgraded through ControlPlane as a managed application on the Platform Manager's shared infrastructure — or on a single server.

BUILT FOR UTILITY SCALE

Engineered for utility scale	Reviewed against the largest utilities and a full year of fine-grained, multi-channel data, then proven end to end — from an empty territory to a whole utility.
Publishing	Reads publish in parallel and scale out as capacity is added.
Generation	Large territories and long histories generate reliably, day after day.
Real time & C&C	A real-time feed for every meter keeps pace with its cadence, and large command batches close end to end through a real MDMS.

USE CASES

- **MDMS acceptance & VEE certification** — every rule fires on exactly the meters it should — the answer key says which.
- **GDM and SAP integration testing** — master data, profile sync, and reads in the exact data model.
- **Load and scale proving** — full-size meter populations, delivered at utility scale, before go-live.
- **CIS lifecycle & outage operations** — exchanges, move-ins, storms with realistic restoration.
- **Command-and-control integration** — a real MDMS's flows — no head-end, no CIS.
- **CI/CD test environments** — deployed by ControlPlane, stamped with each pipeline's source system.

BETTER TOGETHER

GDS is the family's proving ground: it speaks the Grid Data Management Platform's own data model, supplies SCADA to Enhanced Analytics, gives the Testing Platform environments stamped with the source system each pipeline expects, deploys through ControlPlane, and registers with the Grid Data Platform Manager.