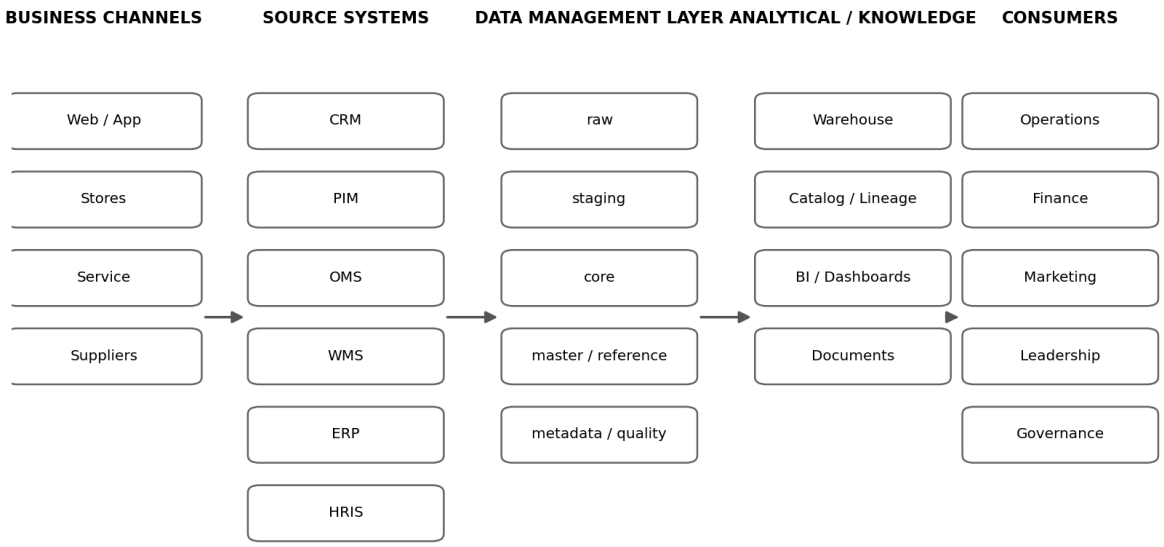
🏢 Meridian Commerce Group — Enterprise Data Management Casebook

The persistent fictional company for all CDMP applied labs

CDMP DMBOK Mastery Lab • Applied Learning Companion Program

Synthetic-only rule: Meridian is fictional. All names, transactions, documents, identifiers and defects are synthetic. Never substitute real personal or employer data into the training environment.



Meridian is intentionally imperfect: conflicting definitions, duplicates, missing values, unclear ownership, undocumented transformations, access issues and retention uncertainty are injected so the DMBOK disciplines have something real to solve.

High-level Meridian learning environment — simplified for orientation.

1. Company profile

Meridian Commerce Group, Inc. (MCG) is a mid-sized U.S. omnichannel consumer retailer that sells household, lifestyle and electronics products through an e-commerce site/mobile experience and a network of physical stores. It operates fulfillment centers, sources products from external suppliers, handles returns, provides customer service and maintains a central analytics function. The company has grown through rapid expansion and partial acquisitions, so its data estate is useful but inconsistent.

Characteristic	Training assumption
Scale	Approximately 50 stores, 2 fulfillment centers, ~1 million historical customer identities and ~20,000 sellable products in the story. Lab

Characteristic	Training assumption
	datasets use small synthetic samples first and scale only when useful.
Channels	Web/app, physical stores, customer service, supplier interactions and internal analytical/reporting channels.
Geography	Primarily U.S.; location/state/country reference data exists so reference-data concepts can be practiced.
Payments	Outsourced and abstracted. Store only synthetic payment method tokens/categories when needed; no card numbers or banking details.
People data	Synthetic employee/persona data only; enough to practice role, access and ethics concepts.
Core theme	The company has enough technology to operate, but its data is not consistently defined, governed, traceable, mastered, protected or measured.

2. Business units and recurring personas

Persona / unit	What they care about	Why they matter in labs
Elena Park — Chief Data Officer	Enterprise value, governance, priorities, evidence.	Sponsors Data Management program and escalated decisions.
Marcus Reed — VP Sales & Digital	Customer growth, conversion, campaigns.	Frequently pushes broad customer definitions and reuse.
Priya Shah — Finance Director	Revenue, margin, reconciliation, control.	Challenges definitions and report trust.
Jordan Lee — Data Governance Lead	Decision rights, issues, stewardship, policy.	Coordinates governance operations.
Avery Collins — Customer Data Steward	Customer definitions, quality, matching, issue resolution.	Central to customer master/glossary cases.
Noah Bennett — Product Steward	SKU/product definitions, supplier and category data.	Product/reference-data cases.
Riley Morgan — Data Architect	Systems, flows, models, target state.	Architecture/model/integration cases.
Sam Torres — Database / Data Platform Engineer	Database objects, access, operations, loads.	Technical implementation partner; not the owner of business meaning.
Maya Chen — BI Analyst	Warehouse, measures, dashboards.	Exposes downstream impact of weak definitions/lineage/quality.
Taylor Brooks — Privacy & Security Partner	Classification, access, appropriate use.	Security/ethics/governance cases.
Casey Grant — Change Lead	Stakeholder adoption, communication, training.	Chapter 17 and governance rollout.

3. Core business process architecture

Process	Why data exists
Browse-to-Order	Customer browses, identifies/selects product, submits order; creates customer/order/order-item data.

Process	Why data exists
Order-to-Fulfillment	Order is allocated, picked, packed, shipped or store-fulfilled; creates location/inventory/status data.
Return-to-Resolution	Customer requests return/refund/exchange; creates reason codes, return events and service records.
Product-to-Sellable-SKU	Product is sourced, classified, enriched, priced and made sellable; creates product/supplier/reference metadata.
Supplier-Onboard-to-Supply	Supplier is approved and linked to products; creates supplier and relationship data.
Forecast-to-Replenishment	Demand/inventory signals drive replenishment decisions; exposes analytics and quality dependency.
Customer-Issue-to-Resolution	Service case is opened, classified, investigated and closed; creates unstructured notes plus structured case data.
Campaign-to-Engagement	Marketing selects audiences and tracks responses; creates ethics/privacy/definition questions.
Hire-to-Offboard	Employee identity and role changes drive access and accountability scenarios.
Access-Request-to-Recertification	User requests access, role is approved/provisioned and periodically reviewed; supports Chapter 7/16 labs.

4. System inventory

ID	System	Primary learning role
WEB	E-commerce website/app	Browse, cart, click/event and order initiation.
CRM	Customer relationship management	Customer identity, preferences, service/marketing context.
POS	Store point of sale	Store purchases/returns and local customer references.
PIM	Product information management	Product descriptions, attributes, categories and stewardship.
OMS	Order management system	Orders, order items and fulfillment status orchestration.
WMS	Warehouse management	Inventory, picks, locations and fulfillment events.
ERP	Finance/procurement	Supplier, purchasing and financial reference/reporting context.
SERV	Customer service platform	Cases, reason codes, notes and interaction history.
HRIS	Human resources	Synthetic employees, departments, employment status.
IAM	Identity/access management	Users, roles, entitlements and recertification evidence.
DWH	Analytical warehouse	Integrated historical data for BI.

ID	System	Primary learning role
CAT	Metadata/catalog layer	Definitions, ownership, classification and lineage — initially incomplete.
DOC	Document repository	Policies, contracts, invoices, procedures and knowledge content.

5. Data domains

Domain	Examples / boundaries
Customer	Identities, profiles, contact points, preferences, consent/marketing indicators.
Product	SKU/product attributes, descriptions, categories, lifecycle states.
Order	Order headers, items, statuses, amounts and dates.
Inventory	Product/location stock levels and inventory events.
Supplier	Supplier identities, statuses, product relationships.
Location	Stores, fulfillment centers and organizational locations.
Return	Return requests, items, reason/status reference codes.
Service	Cases, contact reasons, notes and outcomes.
Marketing	Campaigns, segments, audience selections and engagement.
Employee / Access	Synthetic employees, roles, entitlements and access events.
Document / Content	Policies, contracts, invoices, product/service content.
Metadata	Definitions, technical metadata, ownership, lineage and classifications.

6. The initial “messy company” condition

Issue ID	Problem	Why it matters
MCG-001	Customer identity conflict	CRM, POS and Service use different customer IDs; names/addresses/emails conflict.
MCG-002	Active customer definition conflict	Sales defines activity by engagement; Finance by completed purchase; Service includes entitlement holders.
MCG-003	Product category drift	PIM and reporting use different category codes/names.
MCG-004	Unknown lineage	Executive revenue KPI cannot be traced quickly from dashboard back to sources/transforms.
MCG-005	Quality defects	Null emails, duplicate customers, invalid product references, impossible quantities and stale addresses.

Issue ID	Problem	Why it matters
MCG-006	Over-permissioned analyst	A reporting account can read synthetic sensitive customer attributes it does not need.
MCG-007	Unclear retention	Old service attachments and supplier documents are retained without consistent rules.
MCG-008	Local spreadsheets	Several teams maintain local code lists and manual extracts outside controlled definitions.
MCG-009	Weak metadata	Many columns lack descriptions, owners, classifications or trustworthy source information.
MCG-010	Governance ambiguity	Issues are discussed, but decision authority and escalation are not consistently defined.
MCG-011	Warehouse disagreement	Two dashboards show different “net sales” because transformations and inclusion rules differ.
MCG-012	Change resistance	A business unit resists the shared customer definition and master-record process.

7. Stable casebook rules

- Keep stable IDs for systems, datasets, defects, decisions and incidents so evidence can be reused across chapters.
- Data is created by a business process; every dataset blueprint must state which process/system produced it and who uses it.
- Business meaning and technical storage are separate questions. A PostgreSQL table does not automatically become the authoritative source of a business definition.
- No single tool is allowed to “solve governance.” Tools expose, enforce or document decisions made through Data Management processes.
- When later labs improve Meridian, preserve a copy of the earlier state or reproducible defect-injection script so maturity/before-after analysis remains possible.
- Use synthetic data only and never commit credentials/secrets to the repository.

8. Canonical synthetic dataset blueprint

Dataset	Shape	Starting rows	Purpose
customers_crm	CSV	500	CRM-shaped customer source; intentionally contains some missing/stale contact data.
customers_pos	CSV	350	Store loyalty/customer source with different identifiers and name/address formatting.
customers_service	JSON	220	Service identities/cases with nested interaction context.
products	CSV / PostgreSQL	150	Product/SKU attributes, categories and lifecycle status.
suppliers	CSV / PostgreSQL	30	Supplier master candidates.

Dataset	Shape	Starting rows	Purpose
supplier_products	PostgreSQL	250	Many-to-many supplier/product relationships.
orders	PostgreSQL	2,000	Order headers; mix of known customers and synthetic guest orders.
order_items	PostgreSQL	5,000	Order lines at item grain.
locations	PostgreSQL	8	Stores/fulfillment centers for lab-scale use.
inventory_snapshot	CSV / PostgreSQL	1,200	Product/location/time inventory observations.
service_cases	JSON / PostgreSQL	200	Structured case fields plus text notes.
reference_*	CSV / PostgreSQL	Small	Country/state/order status/return reason/product category code sets.
documents	DOCX/PDF/TXT	20–40	Synthetic policies, supplier docs, invoices and service attachments.
click_events	JSON/Parquet	100k+ later	Chapter 14 scale/format awareness dataset; generated only when needed.

9. Scenario bank starter

Scenario	Trigger	DMBOK areas activated
INC-001 Customer 360 Trust Crisis	Leadership requests a “single customer view,” but the three sources disagree.	Governance, modeling, integration, MDM, metadata, quality.
INC-002 Revenue KPI Cannot Be Traced	Finance challenges a dashboard total and no one can quickly reconstruct the path.	Architecture, integration, warehouse/BI, metadata, quality.
INC-003 Sensitive Attribute Exposure	Analyst role can read synthetic sensitive columns that are not needed for reporting.	Governance, security, metadata/classification, roles.
INC-004 Product Category Split	PIM and BI use different controlled category lists.	Governance, reference data, metadata, quality.
INC-005 Source Format Change	Service JSON changes structure and breaks a staging transformation.	Integration, metadata, quality, operations.
INC-006 Governance Rollout Resistance	Sales refuses the shared customer definition and continues local reporting.	Governance, organization/roles, change management.