

Senior Engineer AI Architecture Checklist

Use approved AI to expose duplicated business logic, then move the decision back to domain owners and architecture governance.

SECURITY BOUNDARY

Never paste production metadata, credentials, connection strings, or PII into a public chatbot. Use approved enterprise tooling and sanitize schema, table, and column names before analysis.

The six-step playbook

1 Harvest the estate

Use the Power BI Admin Scanner API, BIM definitions, Tabular Editor CLI or TOM scripts, and workspace catalogs. Extract DAX measures, calculation groups, relationships, sources, refresh cadences, and owners.

2 Normalize the inventory

Create comparable tables for measures, relationships, source objects, schedules, and ownership. Preserve model and workspace lineage so every finding is traceable.

3 Run approved AI triage

Use AI to cluster, compare, and flag likely duplication. Treat the output as a prioritized review queue - never as the system of record or an automatic merge decision.

4 Validate with domain owners

Bring finance, sales, operations, data owners, and architects into the review. Confirm which variations reflect valid business context and which are accidental drift.

5 Establish canonical contracts

Document the owner, approved definition, business and surrogate keys, source survivorship, history treatment, quality rules, and downstream consumers.

6 Migrate and retire incrementally

Move bounded report groups to governed gold-layer assets, observe results, retire confirmed duplicates, and repeat. Avoid replacing sprawl with one giant semantic model.

Duplication triage prompts

Run only against the sanitized, normalized inventory.

- 01 Identify measures with identical business intent but different names or calculation expressions.
- 02 Find every definition of customer and compare source tables, join conditions, filter rules, and history treatment.
- 03 Cluster semantic models into likely business domains based on source tables and shared entities.
- 04 Flag models with overlapping upstream queries and identical refresh cadences for consolidation review.

Structure the validation queue

- **Finding:** suspected overlap, conflicting logic, or ownership gap
- **Evidence:** model, workspace, expression, sources, cadence, and lineage
- **Decision owner:** named domain stakeholder plus architecture reviewer
- **Disposition:** retain, align, consolidate, retire, or investigate

Design the gold-layer path

Define canonical domain models and reusable dimensions - for example, a governed **dim_customer** - with explicit contracts for keys, survivorship, SCD2 history, ownership, and migration. Sequence consumers in bounded waves; validate, observe, then retire legacy assets.

AI TRIAGES. PEOPLE DECIDE. ARCHITECTURE GOVERNS.