

Stage 6: Product Relationships

The station everyone wanted first

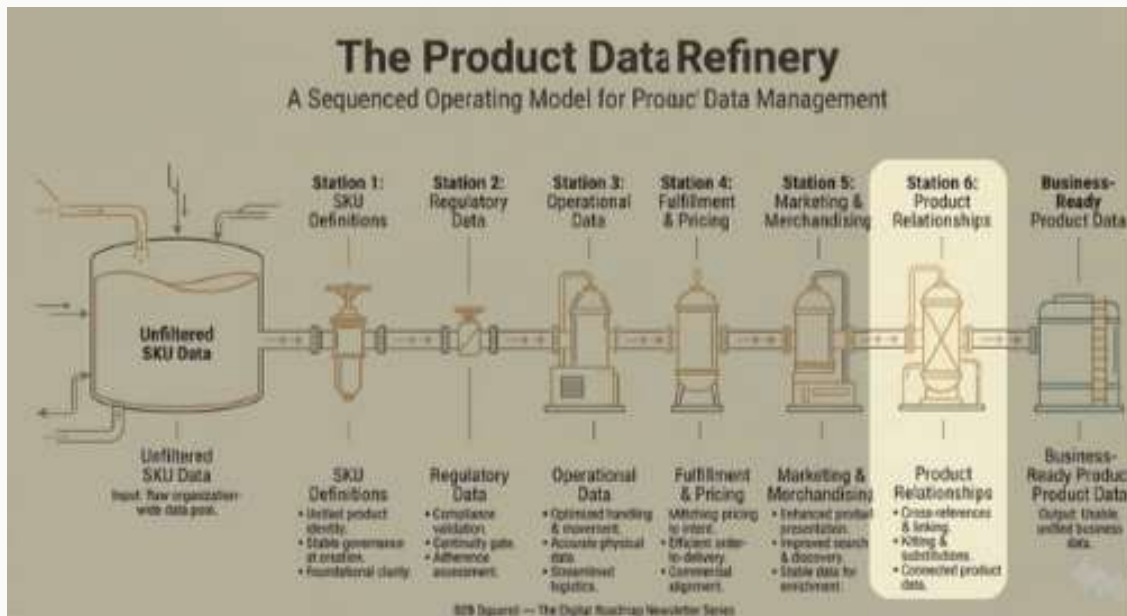
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What This Station Does

Product Relationships is the final station of the Refinery — the discipline of connecting products so buyers, internal users, and AI agents land on the right part, substitute, and companion item.

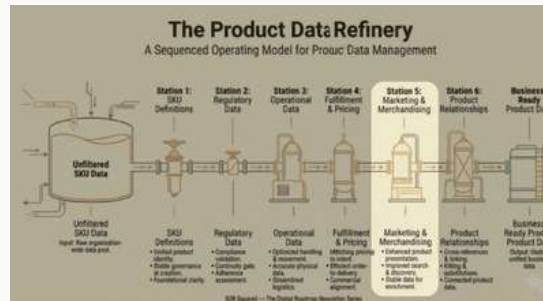
It is the capability every organization wants to build first. It can only work last. Rules that reason across five stations cannot exist until those stations produce data clean enough to reason over.

What makes Stage 6 different: every prior station refined raw item data; Stage 6 holds none. It is a governed rule set layered across the five prior stations — logic operating on the data they refined. It does not describe a product. It describes how products relate.

Even so, it is a managed asset. The rules and definitions are a first-class data asset, governed with the same seriousness as any field upstream. The logic is the data.

It is the communication layer. This station tells search engines, product pages, internal tools, and AI agents how products connect. Without it, five stations of pristine data have no governed way to express how any of it relates inside an application anyone uses.

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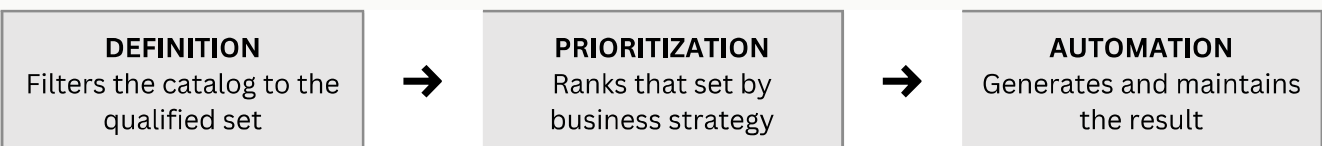
The Two Functions

Every operational activity at this station lives inside one of two functions.

Definition. A filter. Defines which products legitimately qualify to connect to a given product, and what each kind of relationship means.

Prioritization. A business decision. Ranks the qualified set by what the business is trying to optimize.

Definition decides what is allowed in. Prioritization decides what comes first. Almost every failure at this station is a breakdown in one or the other.



Function One: Definition

Definition decides what each relationship means and which SKUs are eligible.

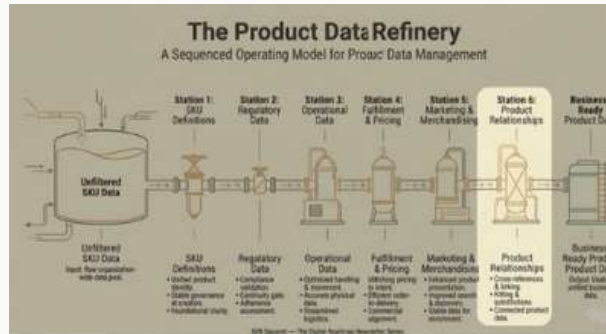
Endpoint qualification. Both endpoints must be active and fully refined through the prior five stations. A relationship pointing at a SKU with missing attributes, unverified lead time, or discontinued status is a guess with a link attached.

Relationship typing. Every relationship belongs to one of four families — the definitions are where the real work begins.

Provenance and authority. Every relationship records its source. Manufacturer cross-references, in-house competitor mappings, SME judgment, and transaction-derived behavior are not equal — the definition treats them by trust level, not by who loaded their file last.

Owned by: Category and Product Data SMEs, dependent on Stages 1 through 5.

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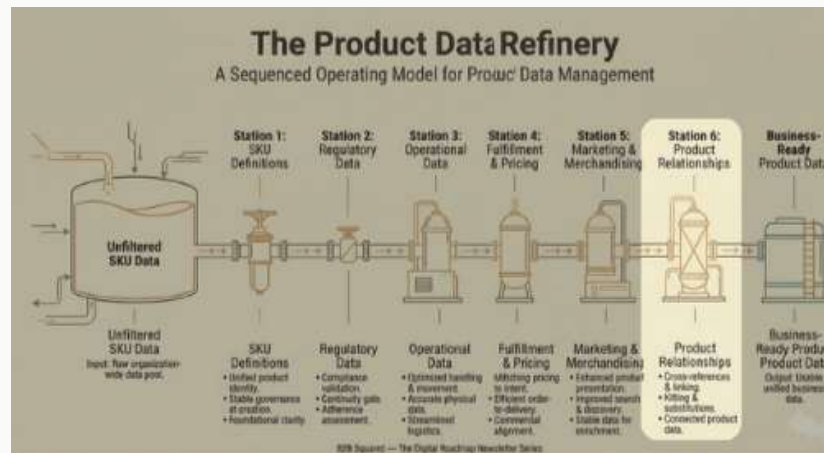


The Four Relationship Families

Each family has its own definition, depends on different upstream data, and breaks in characteristic ways.

Family	What it is	What it depends on	Where it breaks
Exacts	Same product, different SKU. Pack variants, origin variants, and brand variants of the identical item.	Operational Data for packaging. Regulatory Data for origin.	Treating a domestic-origin unit and a globally-sourced one as identical when origin matters to the buyer.
Substitutes	A different product that does the same job. Either an exact from another brand, or a like-or-kind alternative.	Clear definitions of which kinds of substitution are allowed, plus the SKU attributes that prove equivalence.	Offering a like-or-kind when an exact was needed. In B2B, a wrong substitution can stop a production line.
Components	A part that lives inside a product. The seal kit to the pump, the blade to the saw.	Full bill of materials from the manufacturer, often not shared with the distributor.	No BOM means no connection. The customer goes back to the OEM for the recurring parts you should have sold them.
Complementary	What else goes with this. Grows wallet share and signals you understand the customer's work.	Personalization, historical ERP transaction data, and profitability signals.	Raw co-purchase coincidence. Recommending bottled water to a buyer of abrasives because they once bought both.

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Function Two: Prioritization

Definition produces a set of products that legitimately qualify. Prioritization decides the order they appear in, and that order is a business decision, not a technical default. This is the single most complex part of the station, and it is where data discipline hands the wheel to strategy.

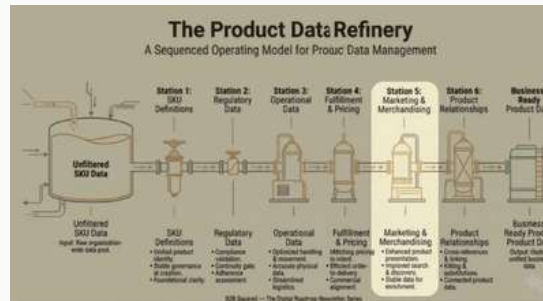
Direction. Relationships have direction. A premium part substitutes down to a standard one more safely than the reverse, and an exact in one direction is not always an exact in the other.

Strategy. When several substitutes qualify, what ranks first? The brand with the margin agreement? The private label? The item in stock today? These are P&L and KPI questions, answered by executives and encoded as rules the system applies every time. There is usually a brand table behind it, or cost-based logic, or both, feeding the boost-and-bury decisions that determine what a buyer sees first.

Live data. Prioritization reads live status. A discontinued SKU drops on its own because the rule never selects it. Nobody runs a cleanup project to bury the dead product. The rule buried it the moment the status changed.

Owned by: Business leadership, encoded in the rules and executed by the system.

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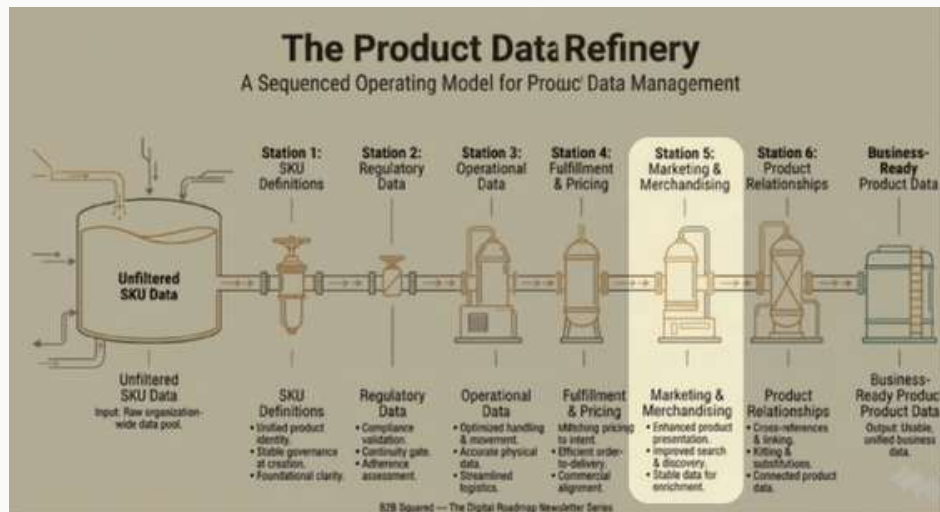


The Maturity Arc: Rows to Rules

When definition and prioritization are both expressed as rules running over governed data, relationships stop being records you create and become outputs the rules generate. You graduate from managing a relationship table to managing the logic that produces it. That graduation is only possible because the five upstream stations gave you data clean enough to write rules against.

Managing rows	Managing rules
Relationships are records you create one at a time, SKU to SKU.	Relationships are outputs generated by rules running over governed data.
Updates happen manually, one record at a time.	Rules read live data. The system updates itself.
A discontinued SKU triggers a cleanup project to find and re-point references.	Discontinued status is just another input the ranking logic already consumes.
What you maintain is the table.	What you maintain is the logic.
Scale is limited by how many rows people can keep current.	Scale is limited only by how cleanly you have defined the rules.

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What “Good” Looks Like at This Stage

Definitions come first. The business decides what each relationship family means before any relationship is rendered.

Every relationship is typed, never just "related." It carries its family, so the buyer and agent know whether it is an exact swap or a suggestion.

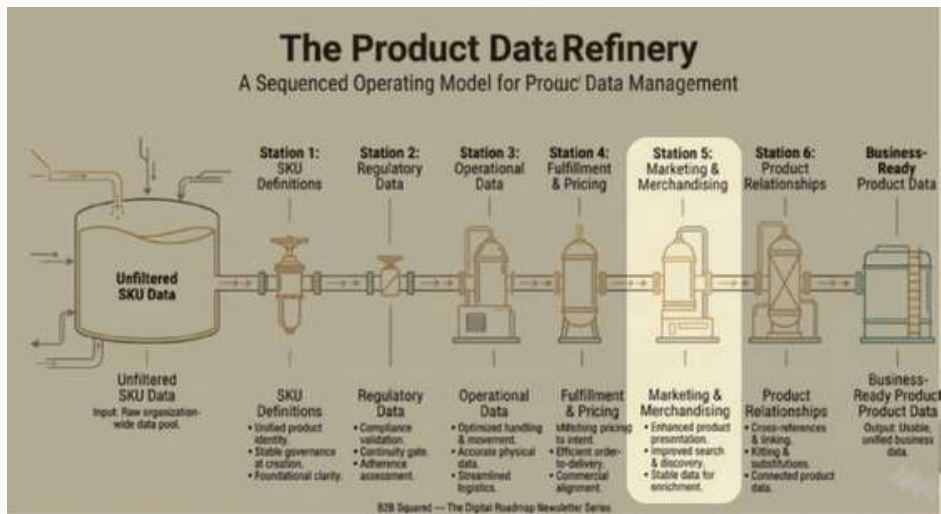
The qualified set is prioritized on purpose — ranked by what the business is optimizing, with live data dropping discontinued or out-of-stock SKUs automatically.

Every relationship has a known source. Source determines trust. A manufacturer-asserted exact carries more weight than a bought-together coincidence.

Relationships are rule-generated, not hand-maintained. The table, where it exists, is an output of the rules, not the source of truth.

The capability converts. Substitutions save the sale. Cross-references convert searches into orders. Repair parts keep the customer on your site. Discovery and AOV move, measurably.

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The Leadership Mindset

Two responsibilities sit squarely with leadership at this station, and both are easy to skip.

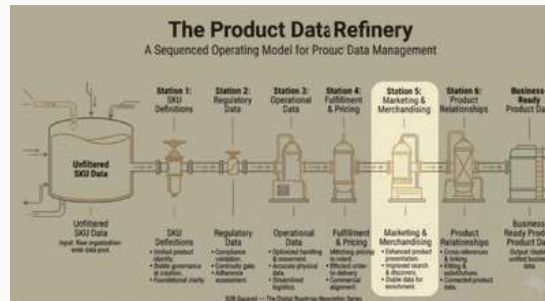
Demand the definitions. A merchandiser cannot decide, unilaterally and without authority, that an exact carries a shipping guarantee and a substitute does not. That is a business definition with real liability behind it, and it has to be owned where the accountability lives.

Set the prioritization strategy. The ranking rules encode what the business is optimizing, and that is a leadership call, not an engineering one. If leadership does not set the strategy on purpose, the system will rank by accident.

Fund rule-tending, not row-maintenance. The ongoing work here is evolving the rules and definitions as the business changes. Fund it as a one-time build and the logic ossifies while the business moves.

Recognize the moat. The competitive moat is not a big table of cross-references that a competitor could rebuild. It is the governed rule set and the refined data underneath it. A coherent body of definitions and prioritization logic, tuned over years to what the business optimizes, is hard to replicate and impossible to simply buy.

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Where to Start

The fastest diagnostic is to look at the connections you are already being asked for. Pull your most-requested competitor cross-references. Then check, one by one: Endpoints. Does each resolve to an active, fully refined equivalent in your catalog? Definition. Is each one typed, exact replacement versus loose substitute? Prioritization. Where several options qualify, are they ranked so the best appears first? Decay. Do any point at products you have discontinued and never resolved? The matches will likely be inconsistent. When you ask why, you land on both halves of the problem: the definition gap and the prioritization gap. You will have proven the thesis to yourself, in your own catalog, in an afternoon.

The Refinery, Complete

With Stage 6 in place, the Refinery is whole. Crude product data entered at the intake valve and moved through regulatory clearance, operational reality, commercial honesty, and merchandising discipline. The sixth station is not another tank of fuel. It is the control logic that decides how the fuel gets routed, ranked, and communicated to everyone downstream.

The station everyone wanted first could only come last — because logic built on top of data needs the data refined before the logic can be trusted.

How Can We Help?

Whether it's helping with your digital roadmap, product data or an RFP for your next B2B platform, we can help.

- **Web:** b2b-squared.com
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- **Phone:** 262-682-0550



About

Lost in digital? We're your GPS.

B2B Squared guides B2B companies through the chaos of digital evolution with the precision of turn-by-turn navigation. We pinpoint where you are (digital maturity assessments), map the smartest route (strategy workshops), find the right technology pit stops (Platform Genius selection tool), optimize your journey (Flywheel B2B marketing automation and SKU Factory for product data), and help navigate the roadblocks (The Digital Roadmap newsletter).

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