Using KNIME to Produce Total Market Data for Client and Datacenter

Laura Rutledge, Market Insights Manager

AMD
together we advance_

A bit about us…

AMD

Market & Account Intelligence

The Market and Account Intelligence team compiles third-party market data to aid in the planning and execution of AMD's businesses.

The market data, as well as the resulting market forecasts produced by the team, provides information at a very granular level – by account, by region, by application, and more. This data is available for use by everyone at AMD.

[AMD Official Use Only - General]

AMD has adopted KNIME as its de-facto processing tool for TAMs since 2015.

This presentation touches on two of the detailed market datasets produced in KNIME.

AMD
together we advance_

What is Total Market Data?

Total Available Market or
Total Addressable Market

TAM **THE WHOLE PIE**

Bigger TAM => Bigger PIE

Smaller TAM => Smaller PIE

Bigger piece of the pie means a larger share of the TAM.

AMD
together we advance_

[AMD Official Use Only - General]

TAM is…

…stored historically and forecasted into the next 3-5 years

…sliced/layered by multiple different categories, geographies, accounts, applications, depending on the focus of the business.

…very critical to get right - BUSINESS PLANS, TARGETS and GTM strategies depend on the correct interpretation of TAM

21 Dec 2023

Global PC Shipments Forecast to Recover in 2024 After Unprecedented Slump in PC Demand, According to IDC

AI-capable PCs forecast to make up 40% of global PC shipments in 2025

Monday, 18 March 2024

Server Market Will Be Worth $195.6 billion in 2027: Omdia's Data Center Server Tracker

Worldwide Server Market Spending with a 10.5% growth in 2023 while expected to Continue with a CAGR of 11.4% in a Five-Year Period, according to IDC.

AMD
together we advance_

[AMD Official Use Only - General]

3rd Party

Data-Sources for TAM are value-chain specific

Different points in value-chain → Different Sources → Different Granularity → Different TAM Sizes

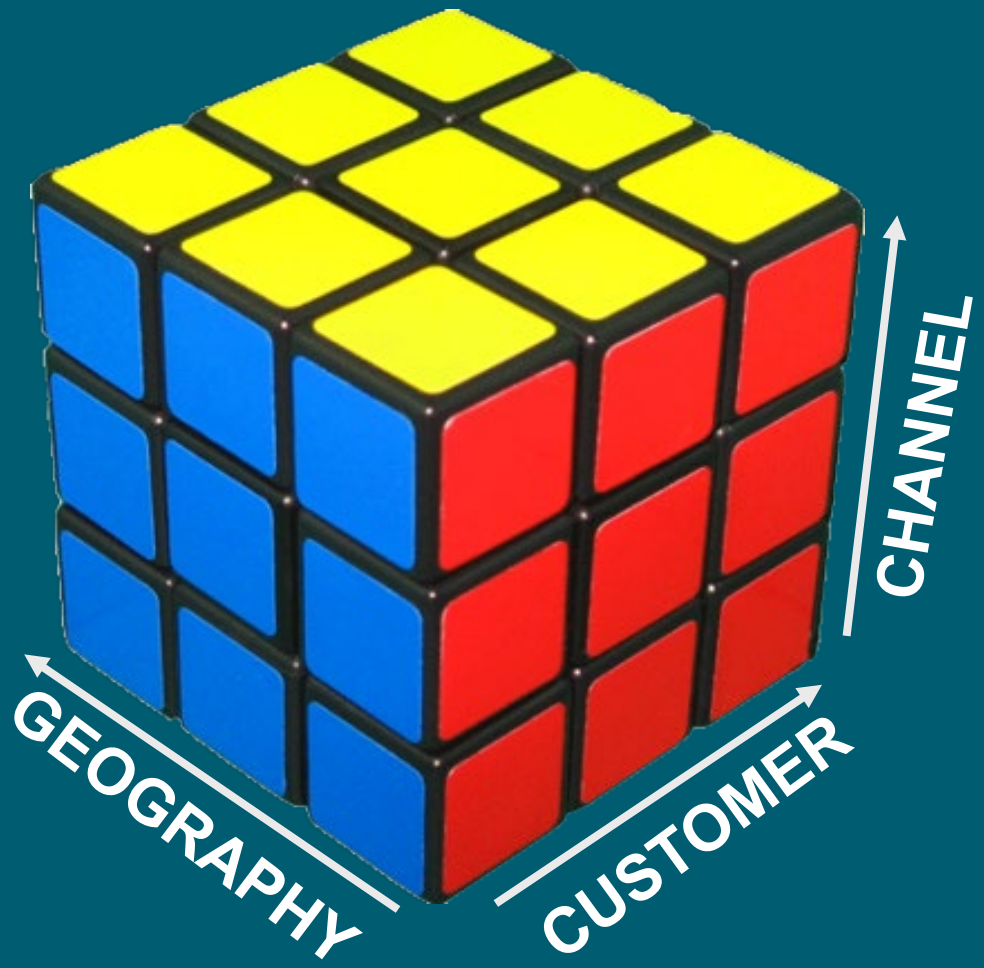
AMD
together we advance_

Standardized Process Framework for TAMs

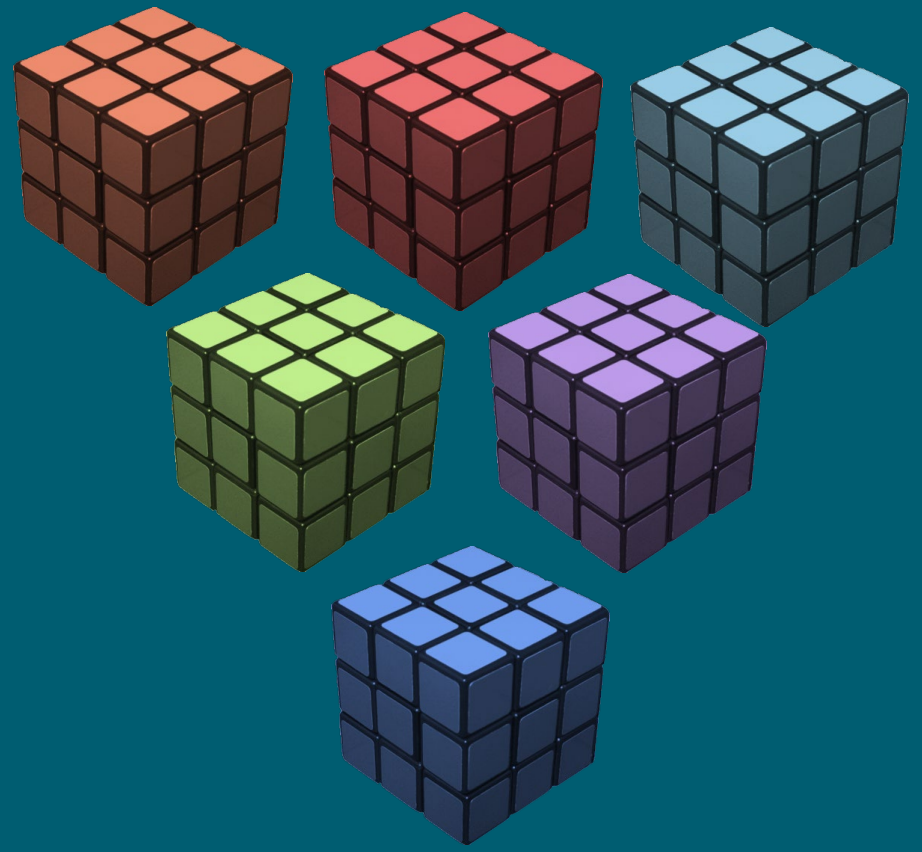
1. Raw Data Load
2. Build Data Set
3. Run Forecasting Algorithm
4. Review & Adjust
5. Publish & Disseminate

② Build Data Set

② Build Data Set

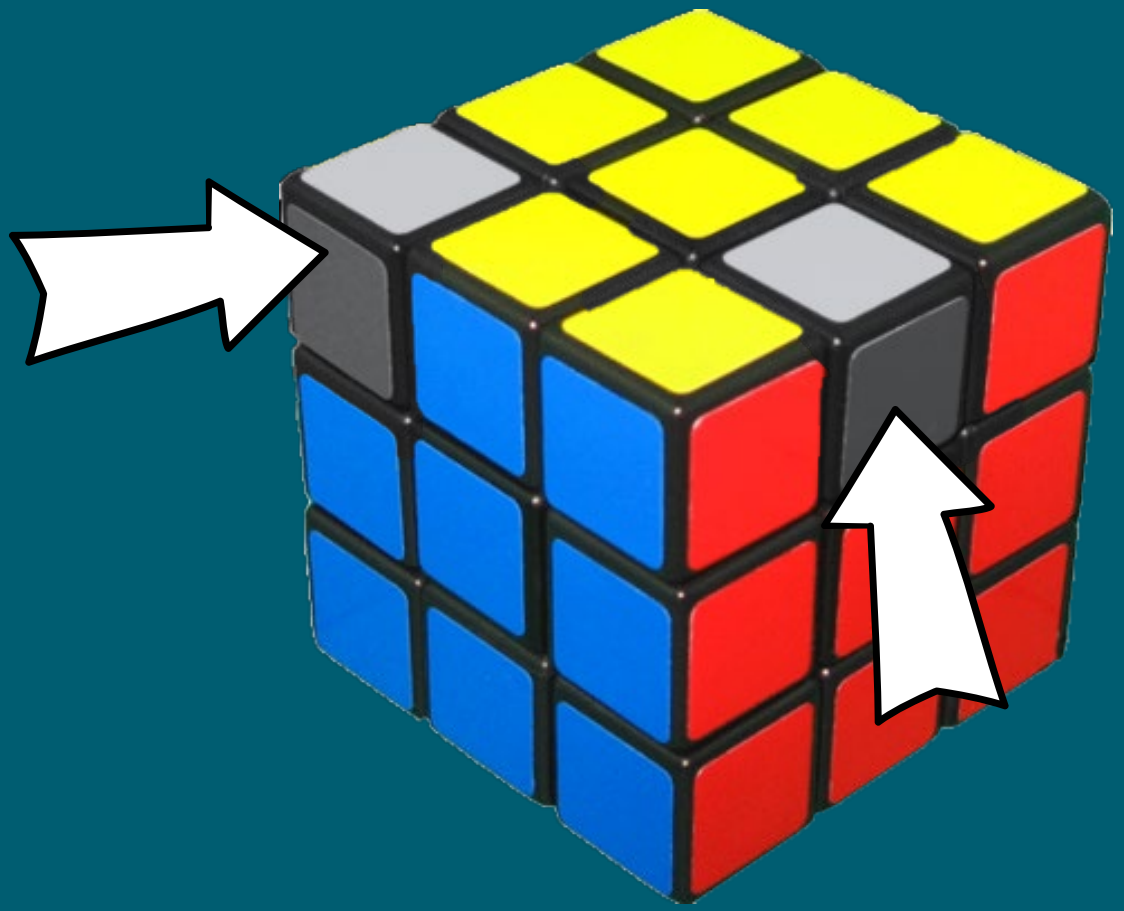


Raw Data (Multiple data sources)

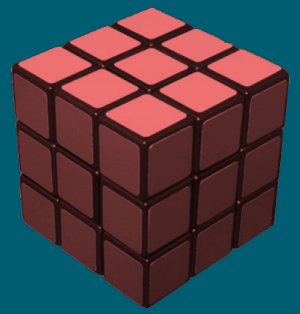


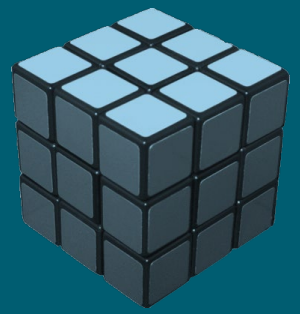
Each dataset is multi-dimensional (n) and has different attributes/feature-sets and are to be included together.

② Build Data Set

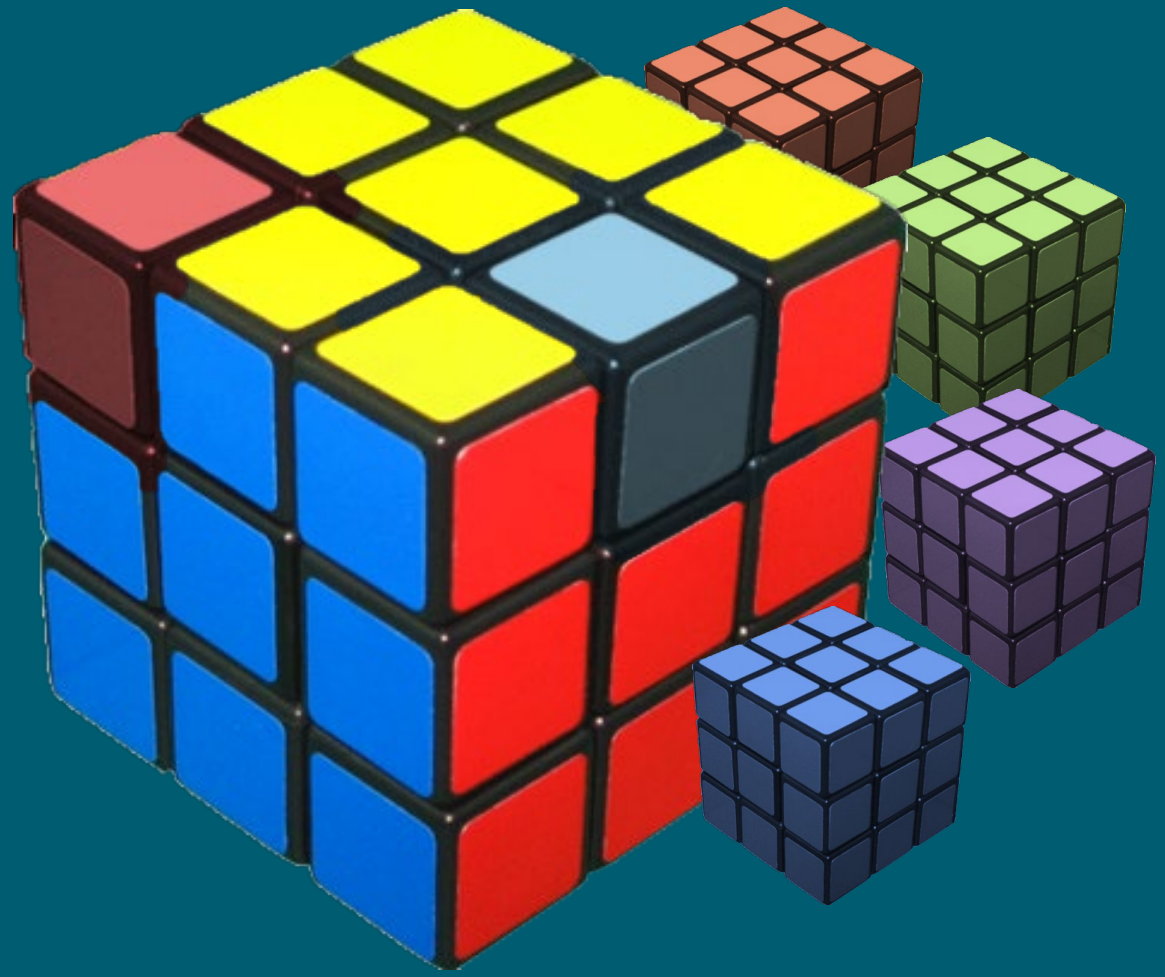


In some cases, base data is also incoherent/insufficient to capture actual TAM and hence needs to be "sanitized" with the help of additional data sources.



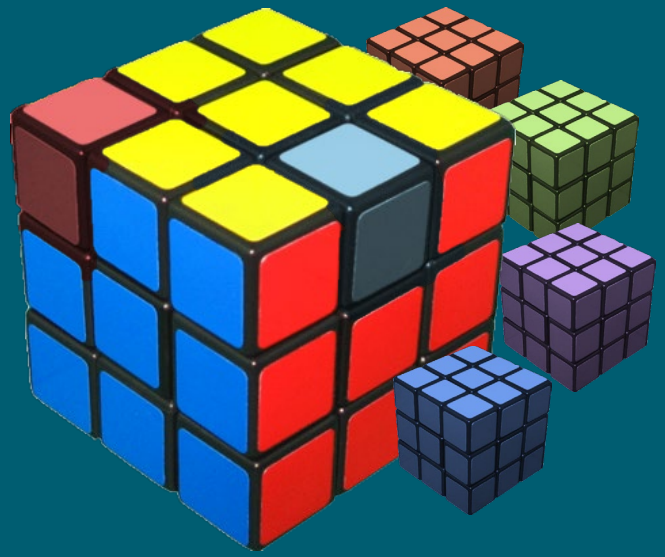


② Build Data Set

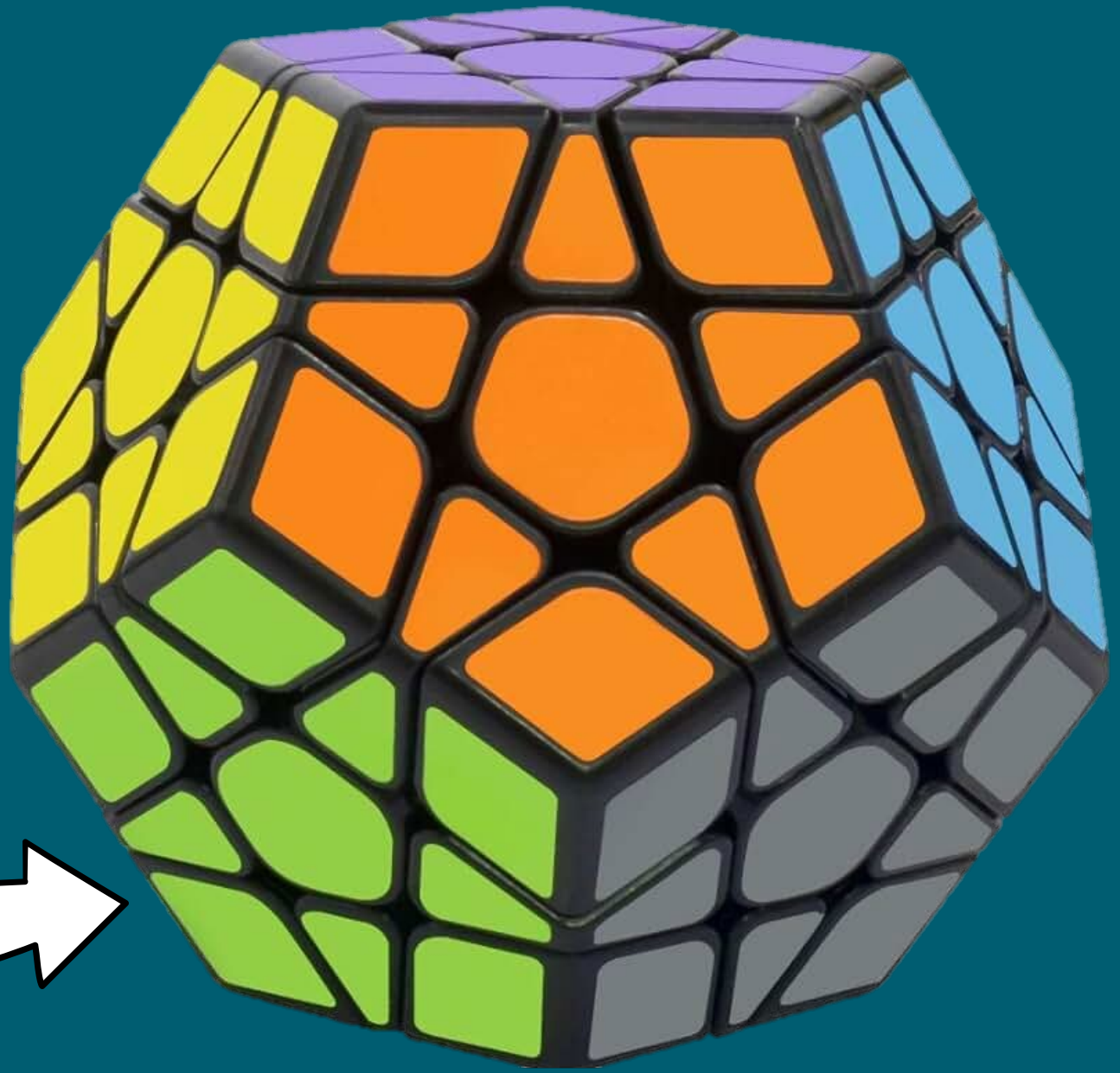


The datasets from various sources are then combined to form a “MASTER” internal data set which is then used as the “base” of the TAM process.

② Build Data Set



Stewarded ‘Megaminx’ Data Set



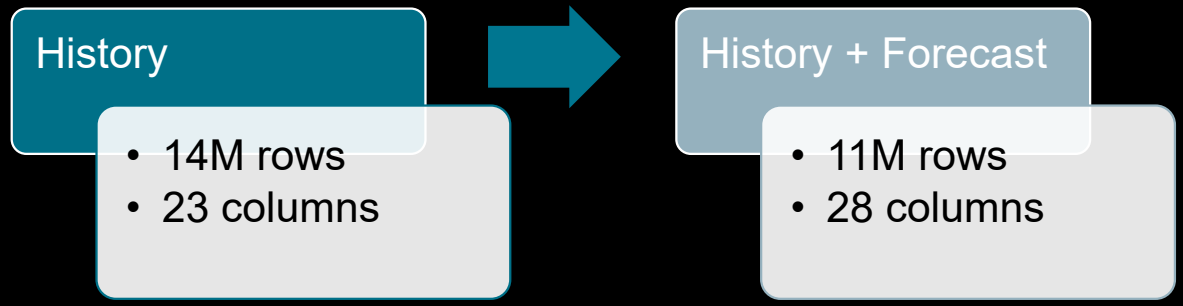
[AMD Official Use Only - General]

Case Study 1: Sell-Through Client Systems

Produced: Quarterly

Number of discrete datasets combined: 8 historical, 1 forecast

Time period produced: 2019 – 2023 history, 2024-2027 forecast

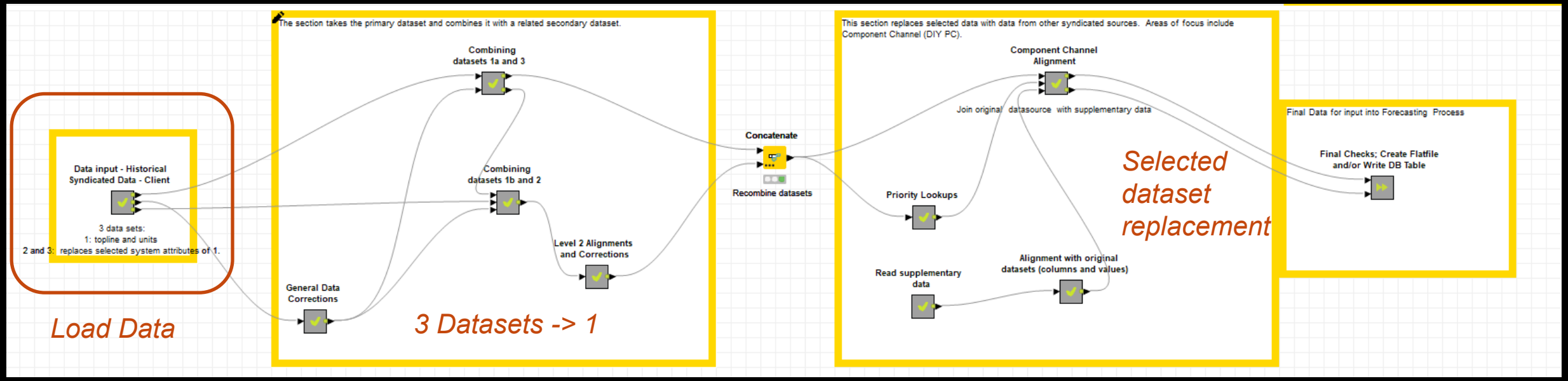


AMD
together we advance_

[AMD Official Use Only - General]

Workflow for Sell-Through Client Systems Historical Dataset

Raw Data Load	Build Data Set	Run Forecasting Algorithm	Review & Adjust	Publish & Disseminate



AMD
together we advance_

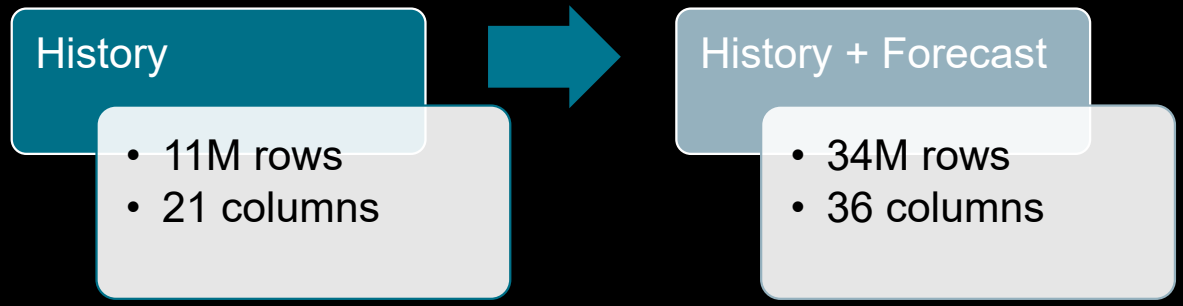
[AMD Official Use Only - General]

Case Study 2: Sell-Through Datacenter CPUs and Systems

Produced: Quarterly

Number of discrete datasets combined: 6 historical, 2 forecasts

Time period produced: 2019 – 2023 history, 2024-2027 forecast

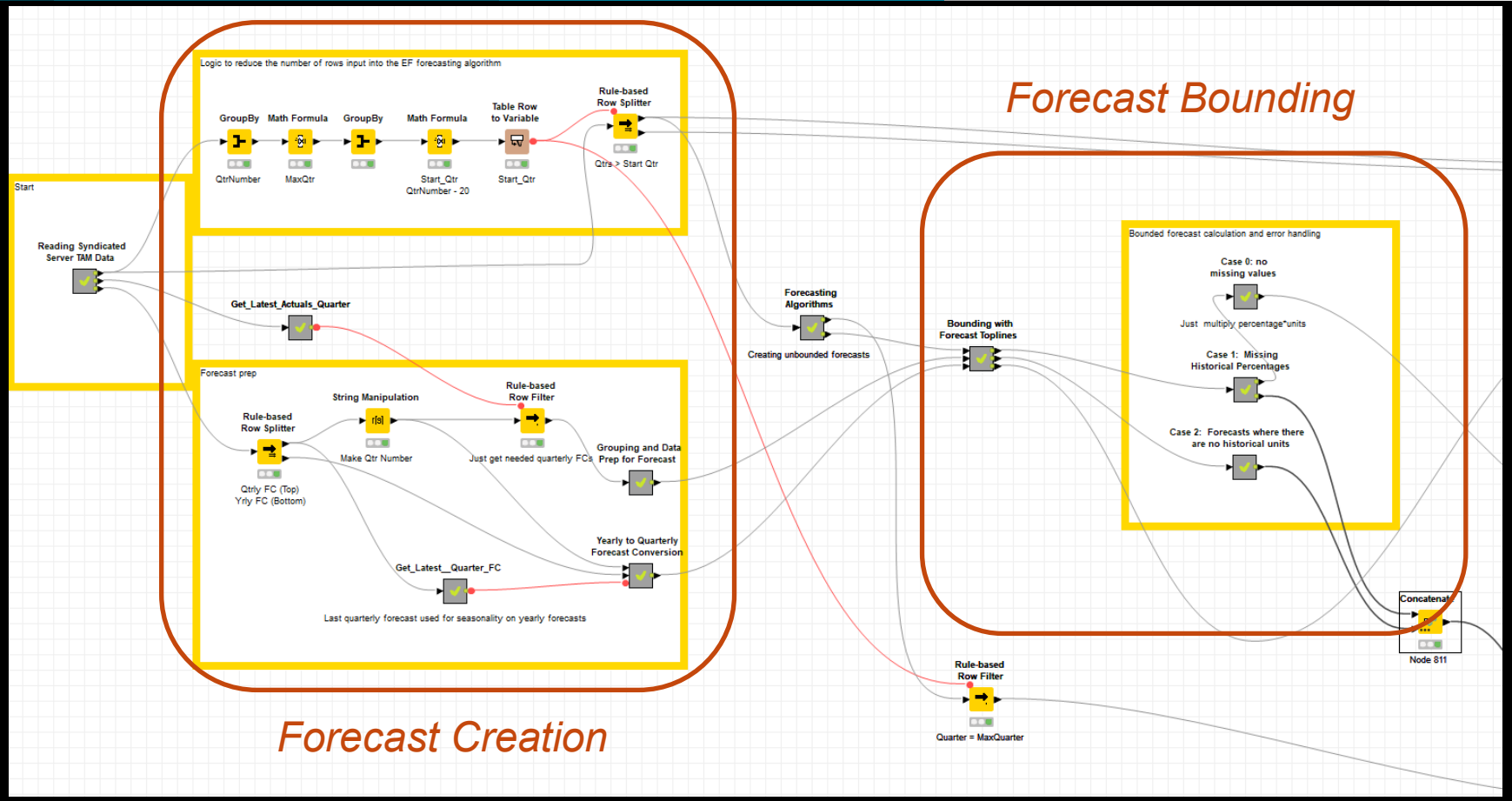


AMD
together we advance_

[AMD Official Use Only - General]

Workflow for Sell-Through Datacenter Forecast – Part 1

Raw Data Load	Build Data Set	Run Forecasting Algorithm	Review & Adjust	Publish & Disseminate

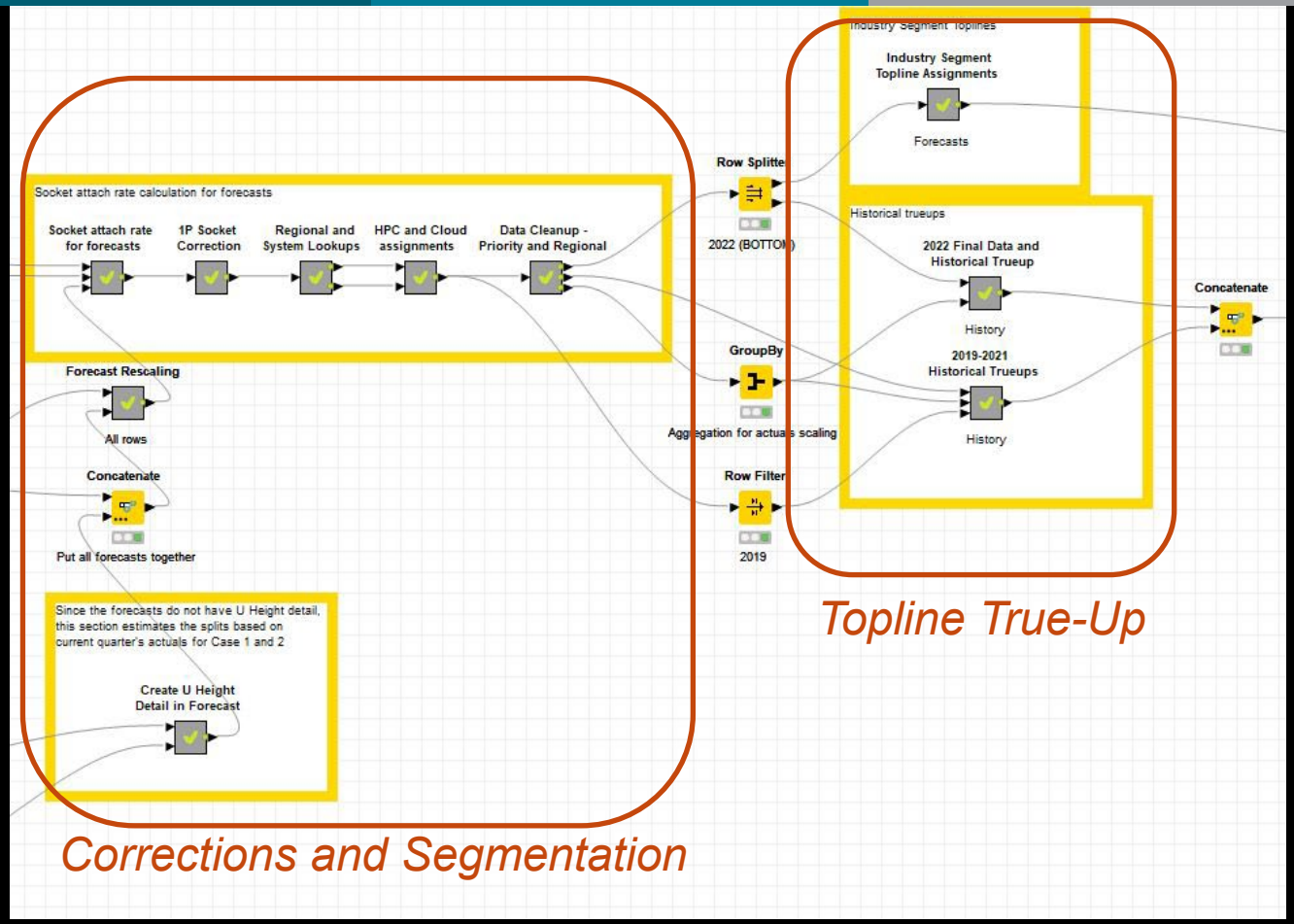


AMD
together we advance_

[AMD Official Use Only - General]

Workflow for Sell-Through Datacenter Forecast – Part 2

Raw Data Load | Build Data Set | Run Forecasting Algorithm | Review & Adjust | Publish & Disseminate

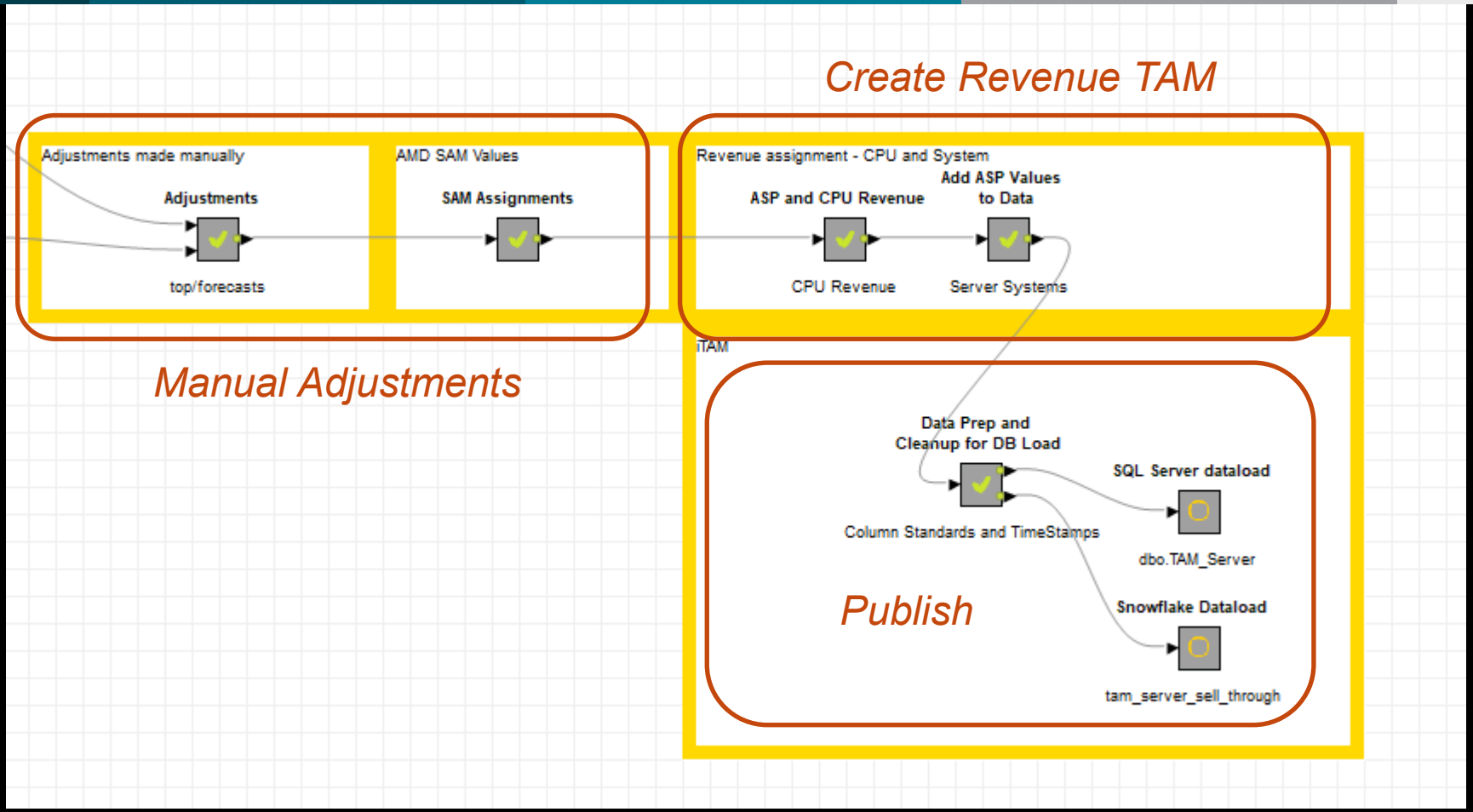


AMD
together we advance_

[AMD Official Use Only - General]

Workflow for Sell-Through Datacenter Forecast – Part 3

Raw Data Load	Build Data Set	Run Forecasting Algorithm	Review & Adjust	Publish & Disseminate



AMD
together we advance_

AMD