Streamlining a complex development environment using Dyalog

Dyalog ’23 – 10/16/2023

Mark I.Wolfson

BIG

Who is BIG?

Who is BIG and why is it a perfect use-case for APL

- Service consultancy in the jewelry industry
  - Customers:
    - Retail Jewelers
    - Jewelry Manufacturers (vendors)
    - Jewelry industry service companies
  - Services:
    - Inventory analysis & merchandising consulting
    - Jewelry sales/inventory data aggregation
  - We provide these services by collecting accurate, timely data from 1600 retail jewelry stores using 40 different software systems.

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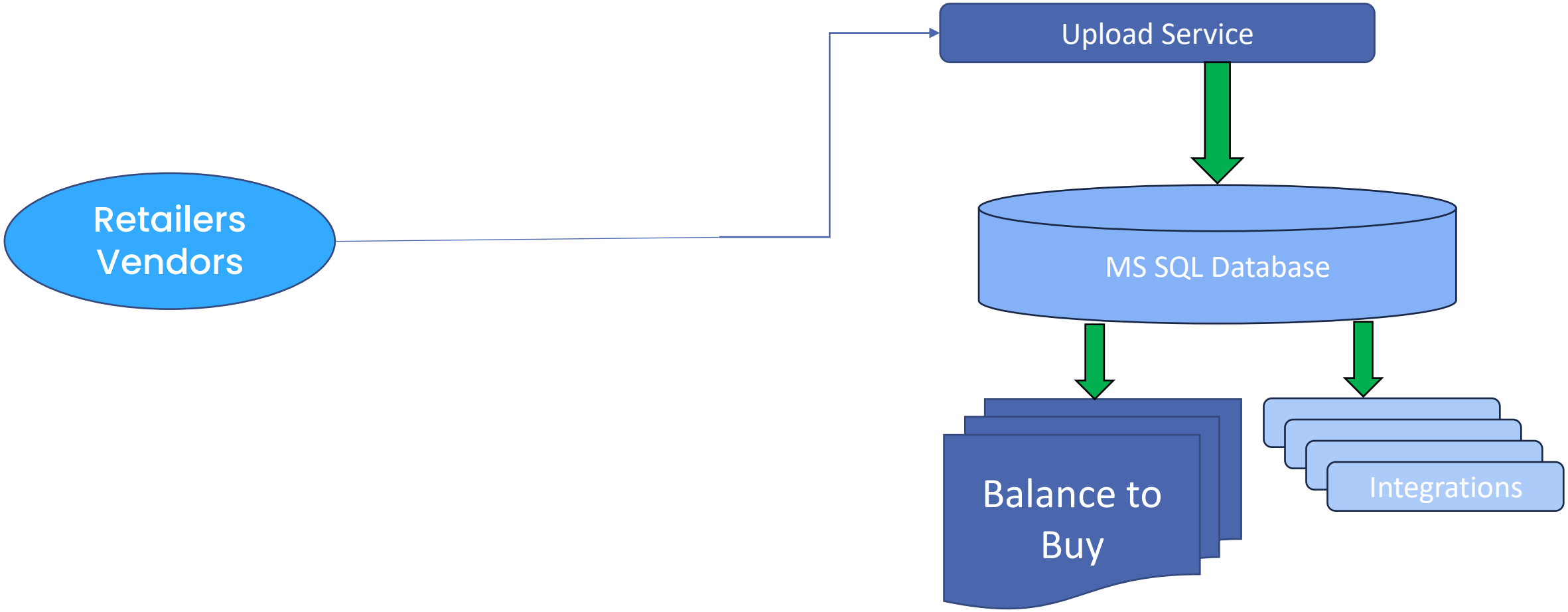
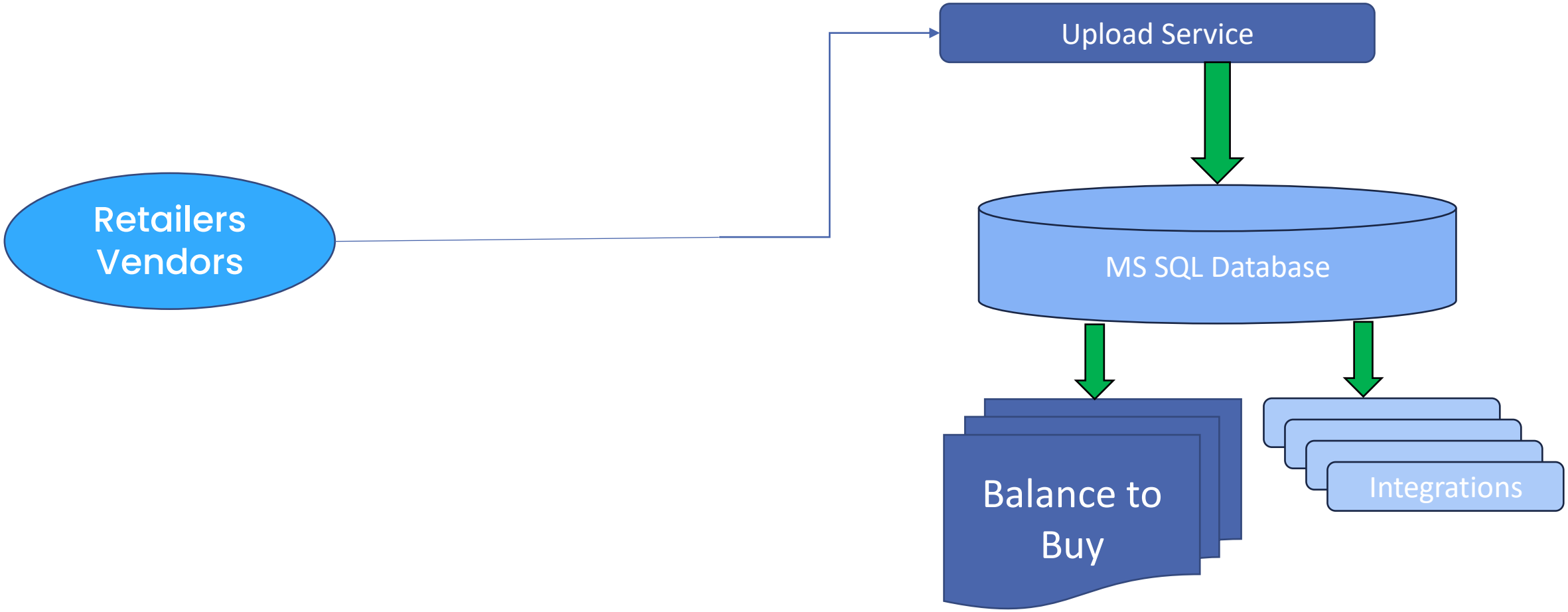
Big Business – Disrupting the Jewelry Industry

- Prior to BIG - 2005
  - Independent Jewelers – family-owned businesses
  - No POS/Inventory Management
    - Wrong inventory mix
    - Too much non-performing inventory
- Balance to Buy - 2007
  - Improve performance by using data
    - Analyze prior consumer behavior
    - Strategies to reduce aged inventory
    - Budget/Plan/Buy/Manage


Retailers
Vendors
Upload Service
MS SQL Database
Balance to
Buy
Integrations

Retailer Data – A HOT MESS

- Integration with dozens of systems
  - Varying number of files even for the same system
  - Different formats
    - Flavors of CSV
    - Text files
    - Excel
    - XML
    - JSON
  - Different content
    - Variations in content between retailers using the same system
    - Variations within a retailer depending on who's entering the data
    - Changes over time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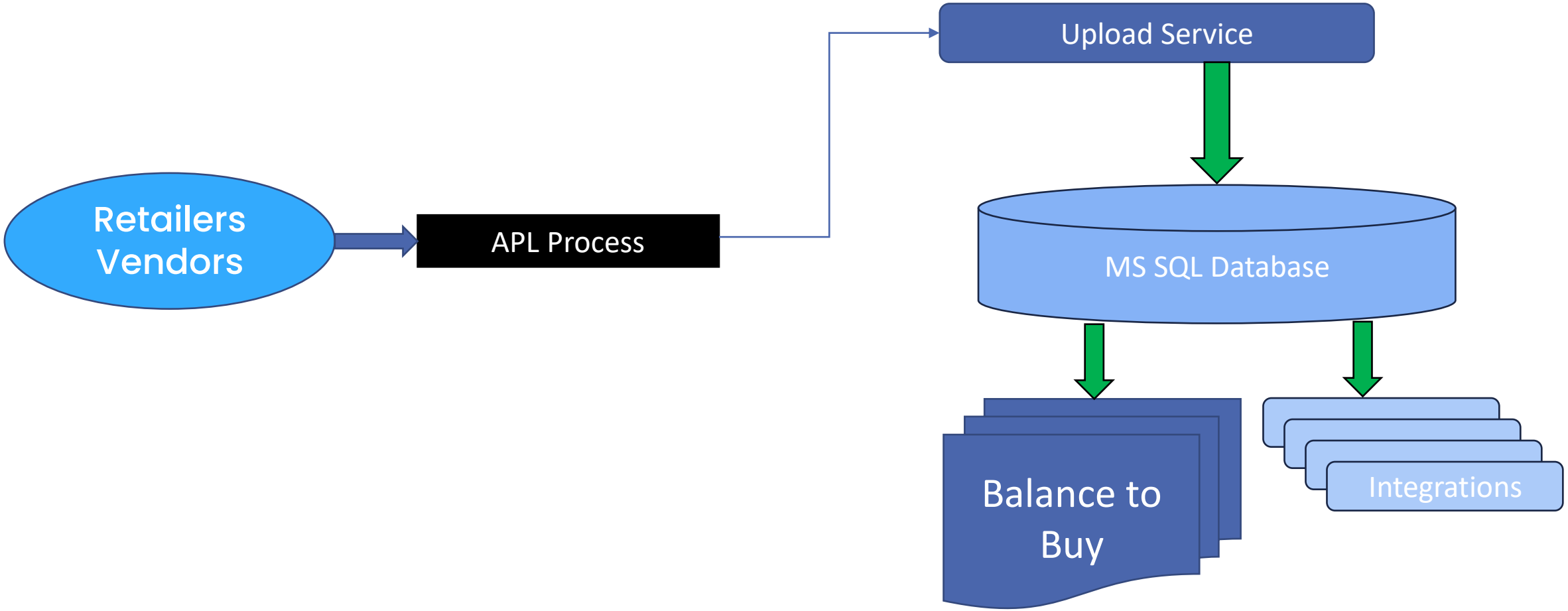
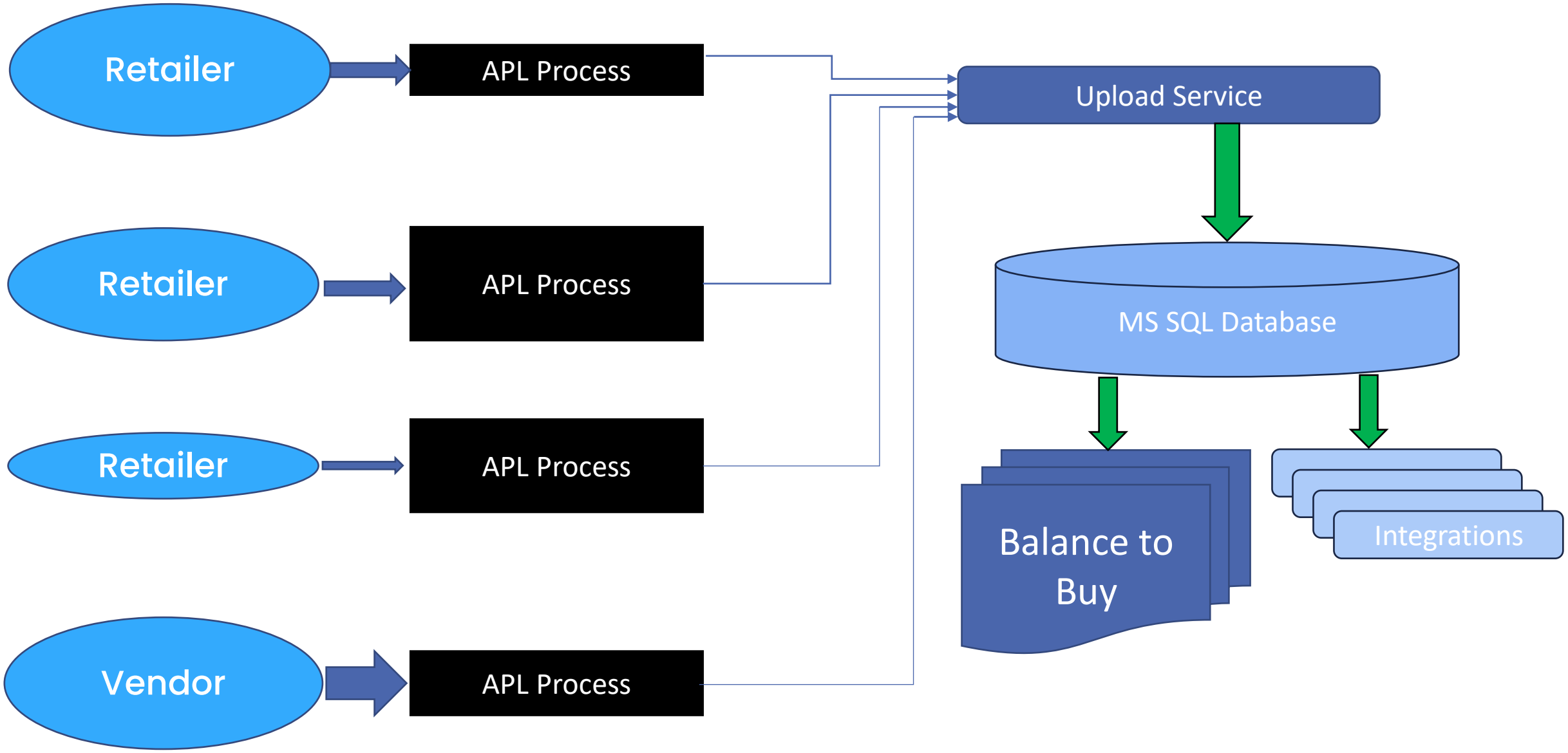

Retailers
Vendors
APL Process
Upload Service
MS SQL Database
Balance to
Buy
Integrations


Retailer
Retailer
Retailer
Vendor
APL Process
APL Process
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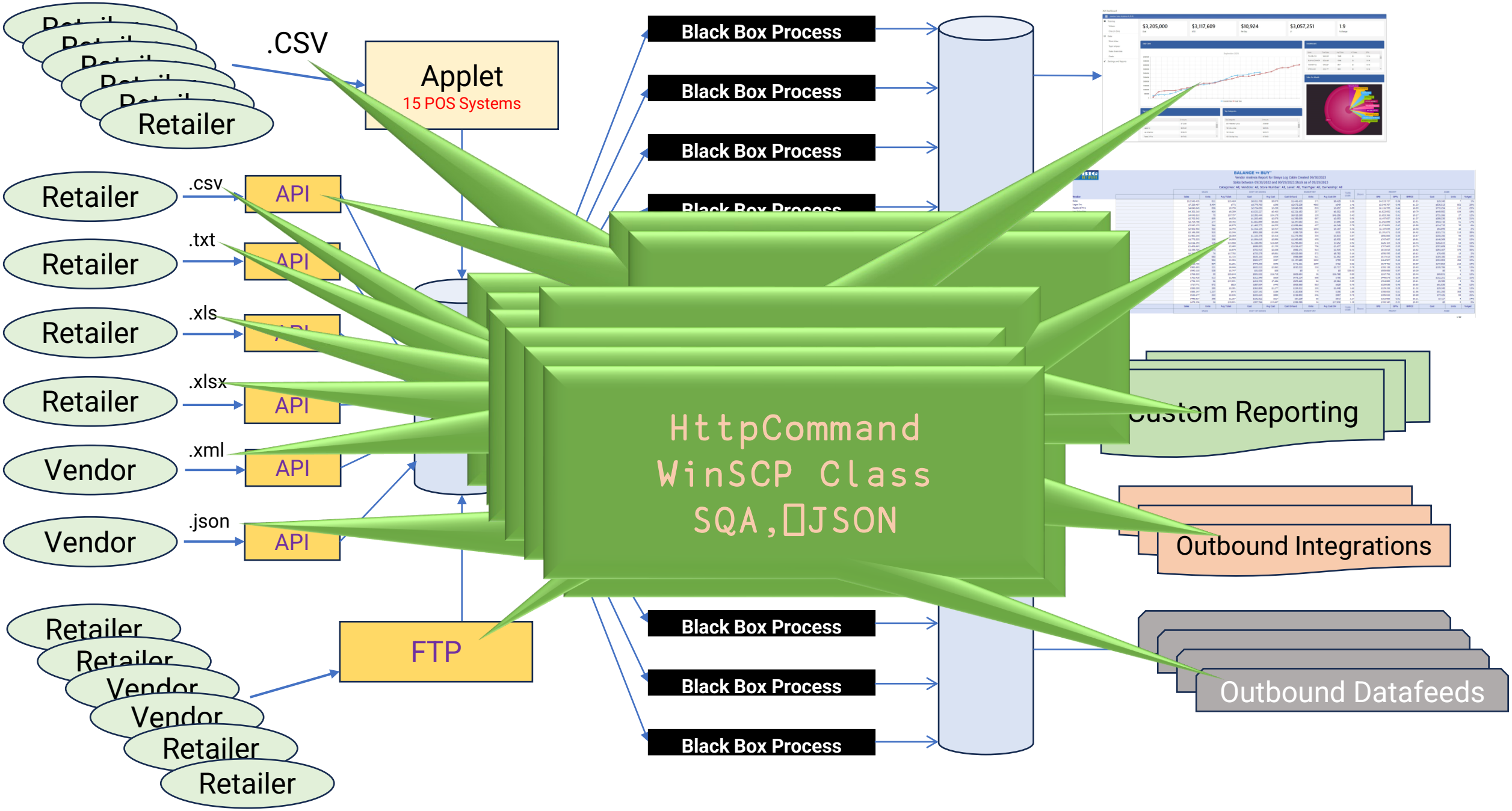
MS SQL Database
Balance to Buy
Integrations


Retailer
.CSV
Applet
15 POS Systems
Retailer
.csv
API
Retailer
.txt
API
Retailer
.xls
Retailer
.xlsx
API
Vendor
.xml
API
Vendor
.json
API
Retailer
Retailer
Vendor
Vendor
Retailer
Retailer
FTP
Black Box Process
Black Box Process
Black Box Process
Black Box Process
HttpCommand
WinSCP Class
SQA,JSON
Black Box Process
Black Box Process
Black Box Process
Custom Reporting
Outbound Integrations
Outbound Datafeeds

Academy View (ALPHA)

- Training
  - Videos
  - One on One
- Data
  - Store View
  - Team Viewer
  - Sales Associate
  - Goals
- Settings and Reports

$4,665,000
Goal

$147,668
Per Day

$2,597,650
MTD Sales

$3,211
MTD New

$26
MTD Avg Ticket

$2,659,777
LY Sales

$3,071
LY New

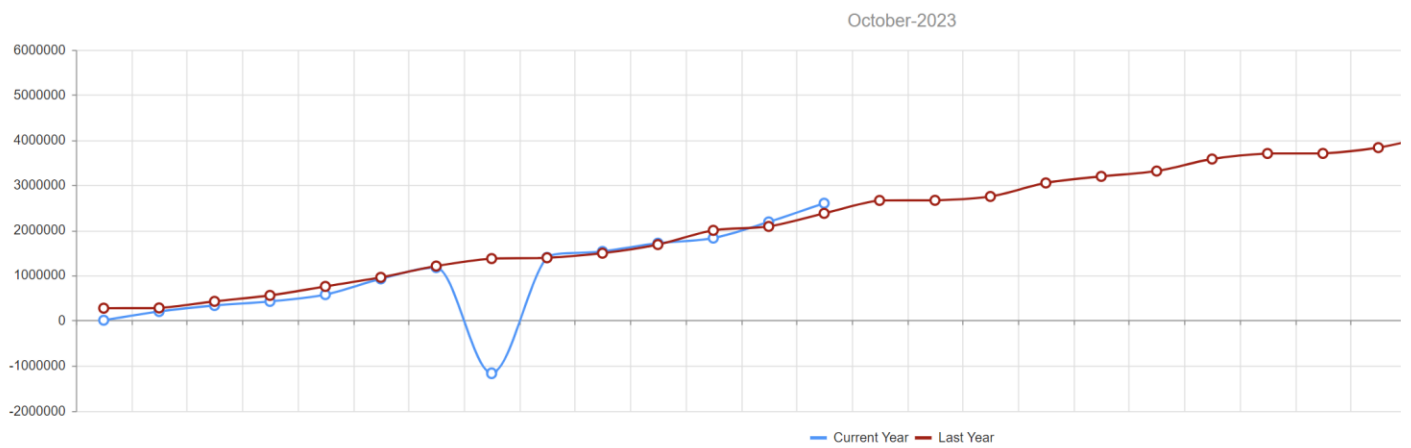
$21
LY Avg Ticket

-2.2
% Change Sales

5.5
% Change New

19.2
% Change Average

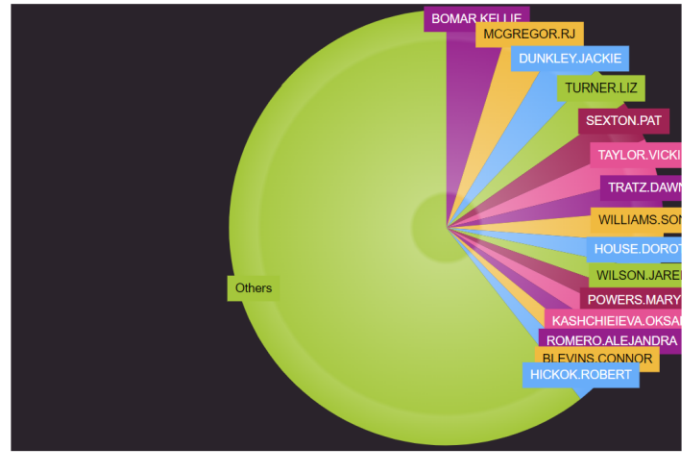
Daily Sales



Leaderboard

Name:	Total Sales:	Avg Ticket:	# Tickets:	GP%:	% New
BOMAR.KELL...	$174,035	6001	29	42	0
MCGREGOR....	$139,531	15574	12	46	8
DUNKLEY.JA...	$127,344	6445	20	40	40
TURNER.LIZ	$115,521	3935	30	50	37

Sales For Month



Top Vendors

Top Vendors:	$ Amount:
Rolex	$603,250
Gn Diamond	$202,420
Lagos Inc	$192,114
Rahaminov Diamonds Inc	$190,481

Top Categories

Top Categories:	$ Amount:
500 -Watches -Luxury	$603,250
150 -Dia Ear	$270,068
190 -Dia -Loose	$266,744
610 -Silver Brac	$134,137

BIG

New Production Environment

- Windows Service
- Code in text files
- Full Source Control
- Global file handling
- Global error handling

BIG

Thank you!

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