

Streamlining a complex development environment using Dyalog

DYNA '24 – 04/11/2024

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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.

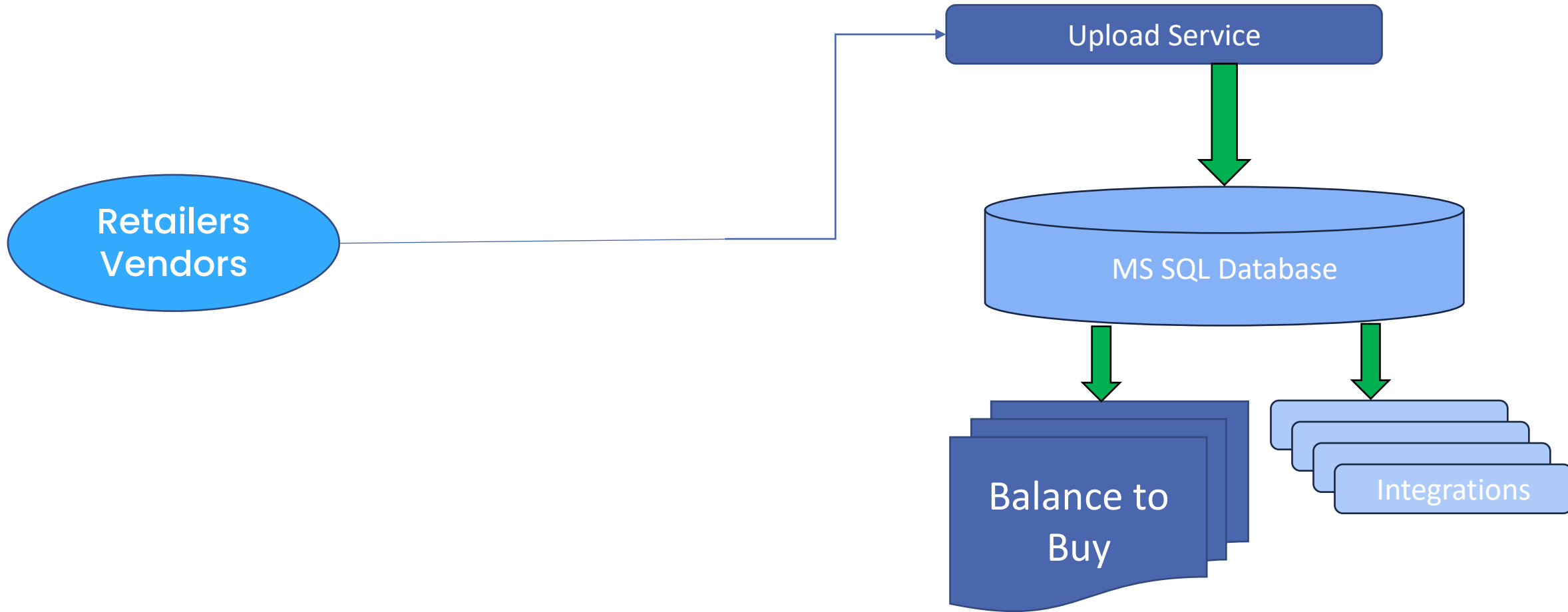
Why is BIG interesting?

BIG is an interesting case study for:

- Using APL in a non-usual industry
- Migrating from APL2/PC → Dyalog APL
- Developing a web-based subscription-based application
- Developing in a multi-stack, multi-technology environment
- Multi-generational dev team

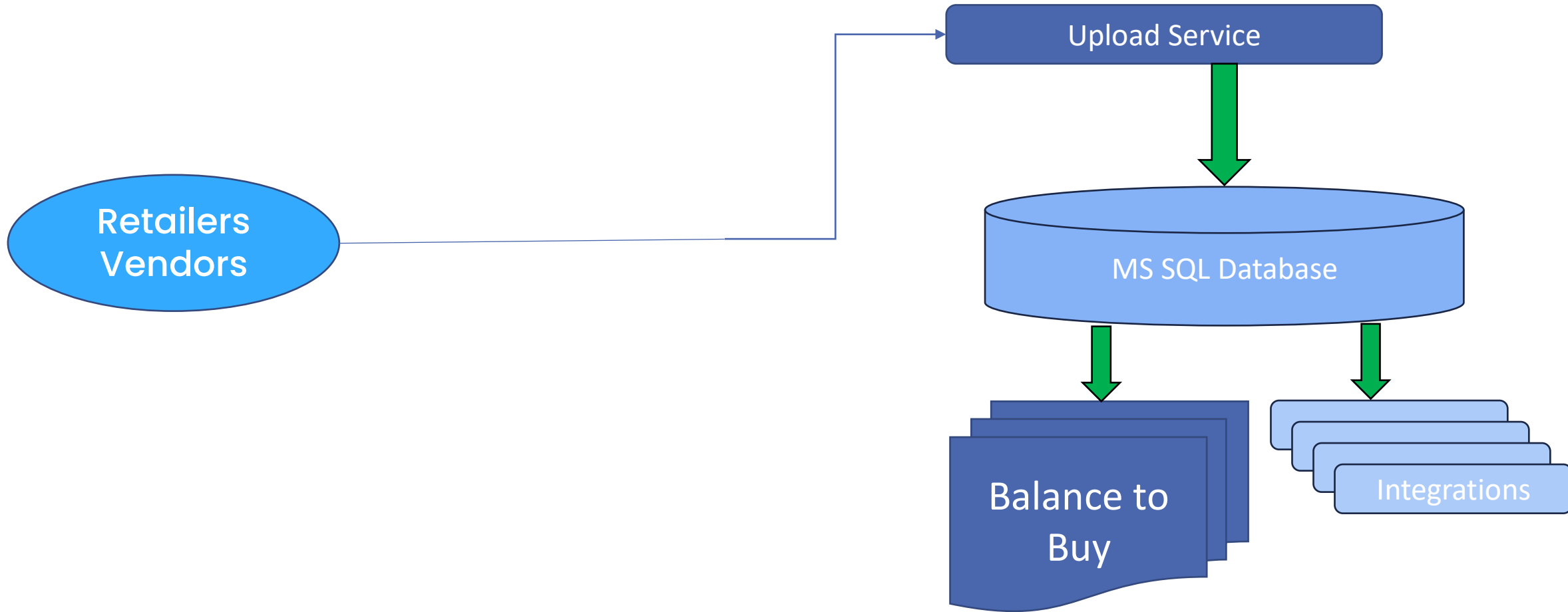
Big Business – Disrupting the Jewelry Industry

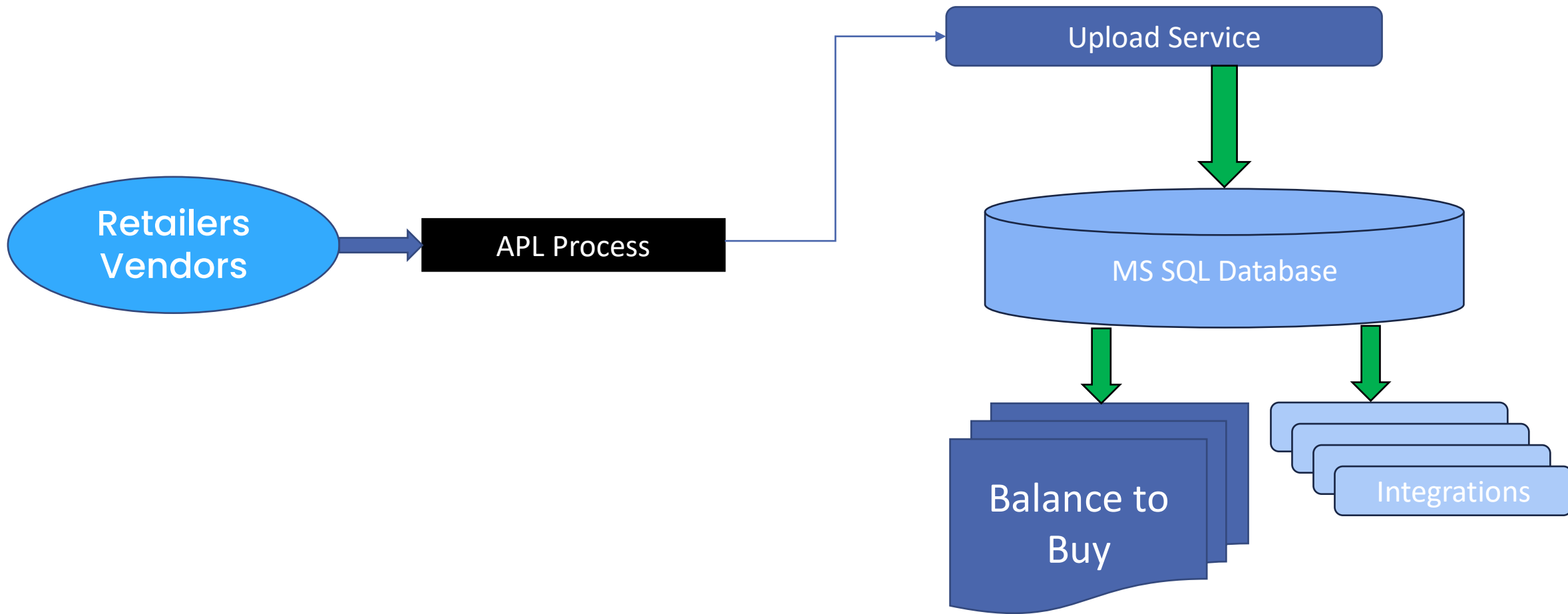
- Prior to BIG - 2005
 - Independent Jewelers – family-owned businesses
 - No POS/Inventory Management
 - Wrong inventory mix
 - Too much non-performing inventory
- Balance to Buy - 2007
 - Improve performance by using data
 - Analyze prior consumer behavior
 - Strategies to reduce aged inventory
 -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

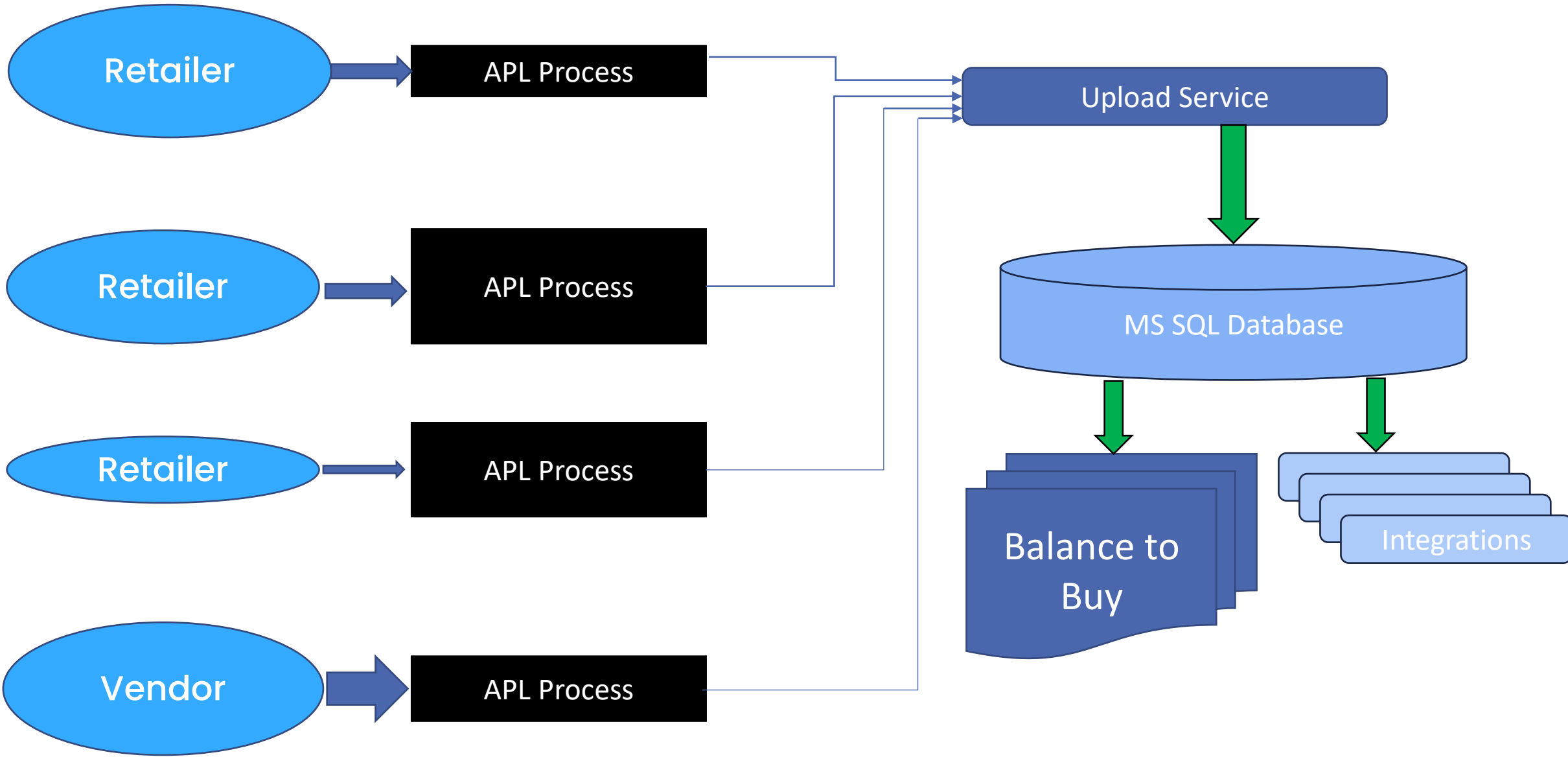


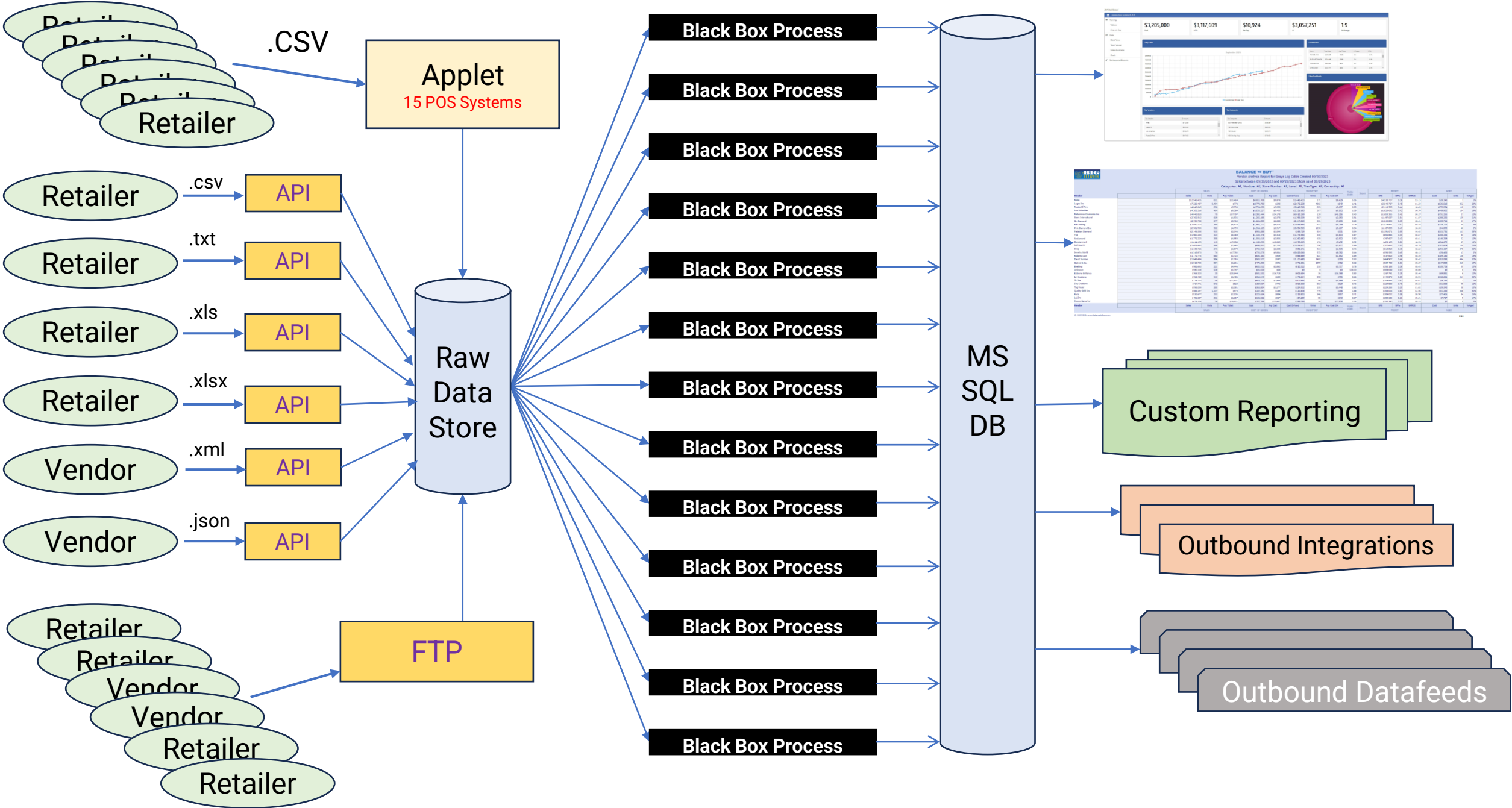
Retailer Data – A HOT MESS

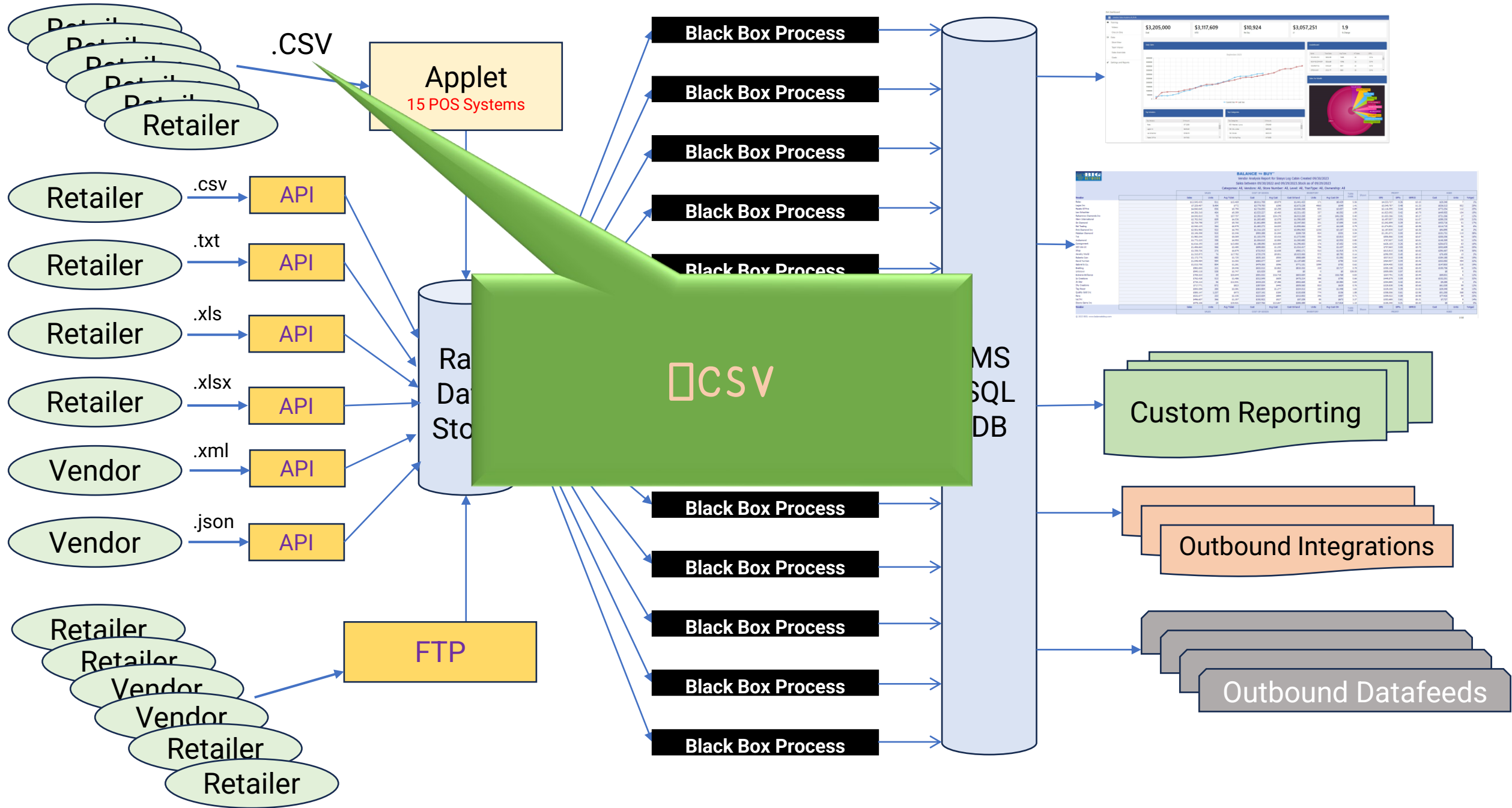
- Integration with dozens of systems
 - Varying number of files even for the same system
 - Different formats
 - Flavors of CSV
 - Text files
 - Excel
 - XML
 - JSON
 - Different content
 - Variations in content between retailers using the same system
 - Variations within a retailer depending on who's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

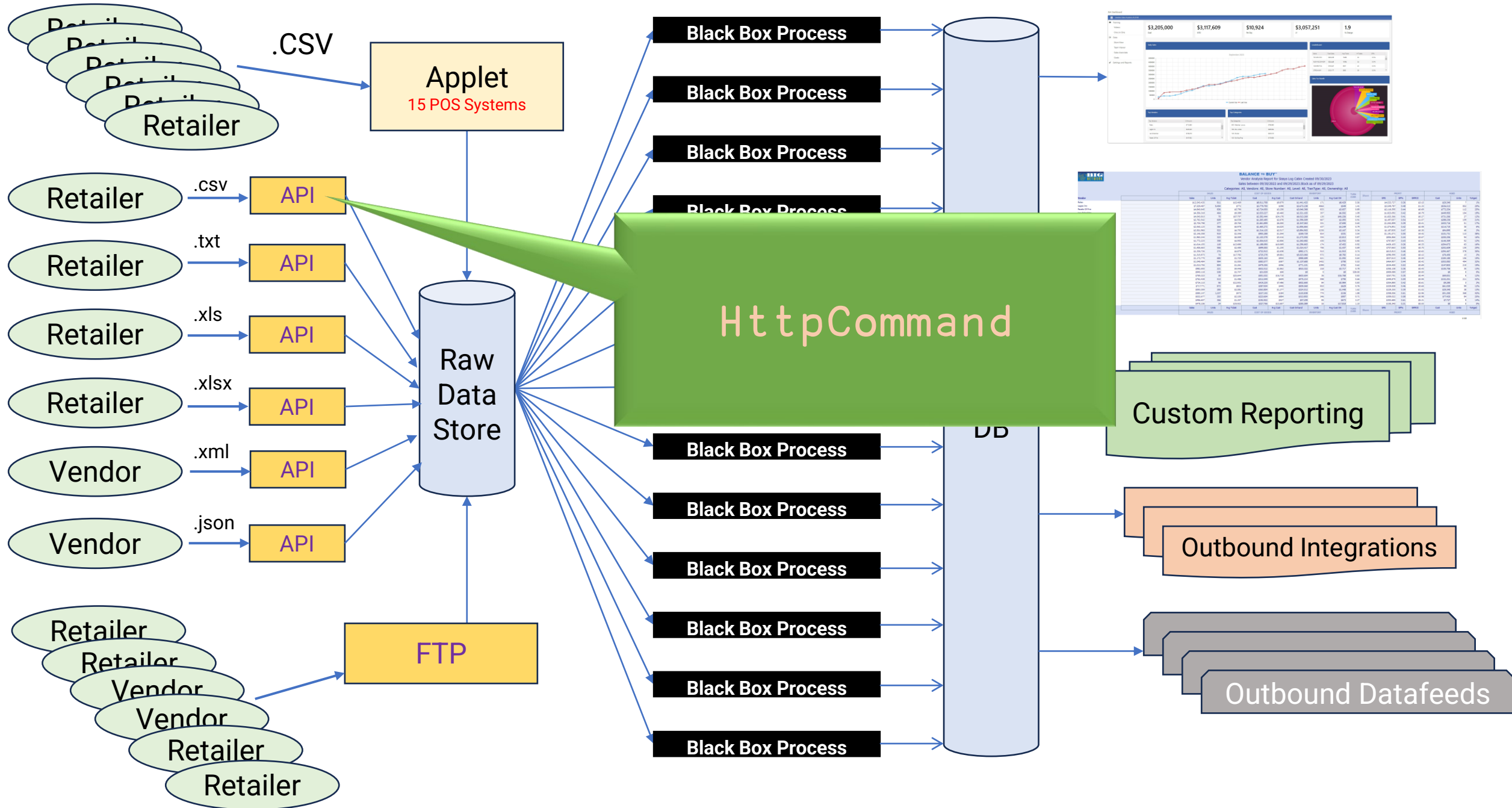


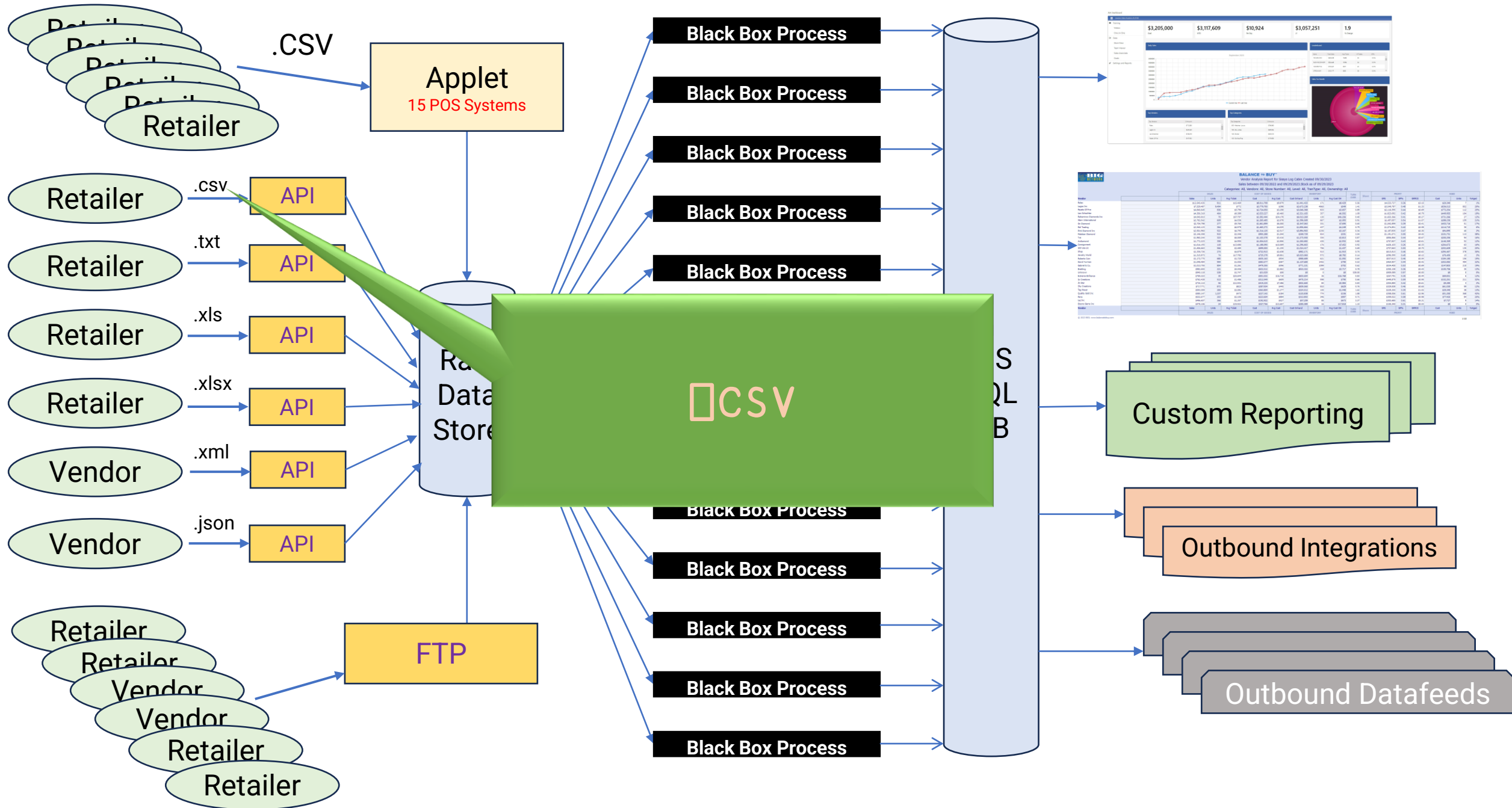


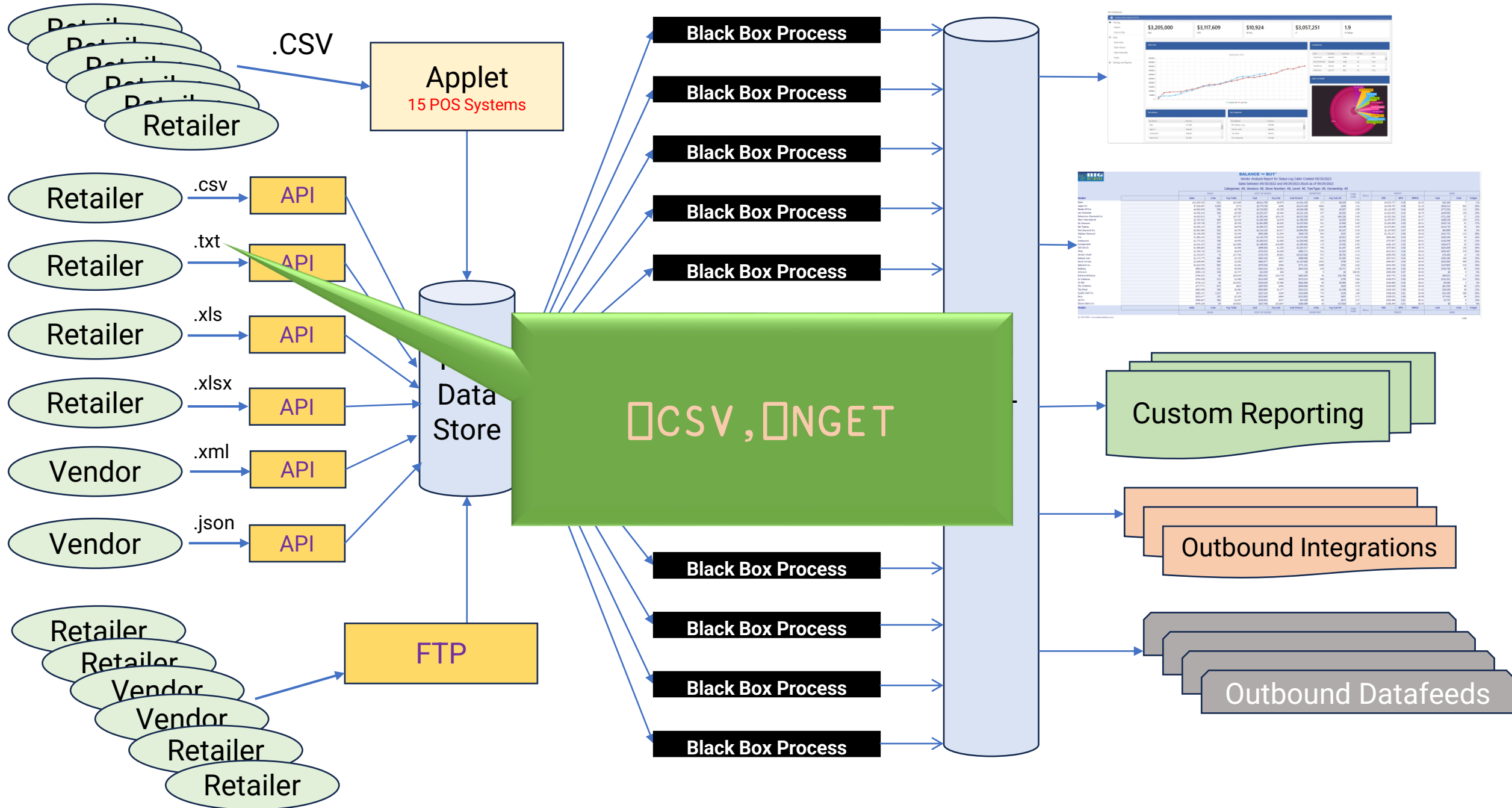


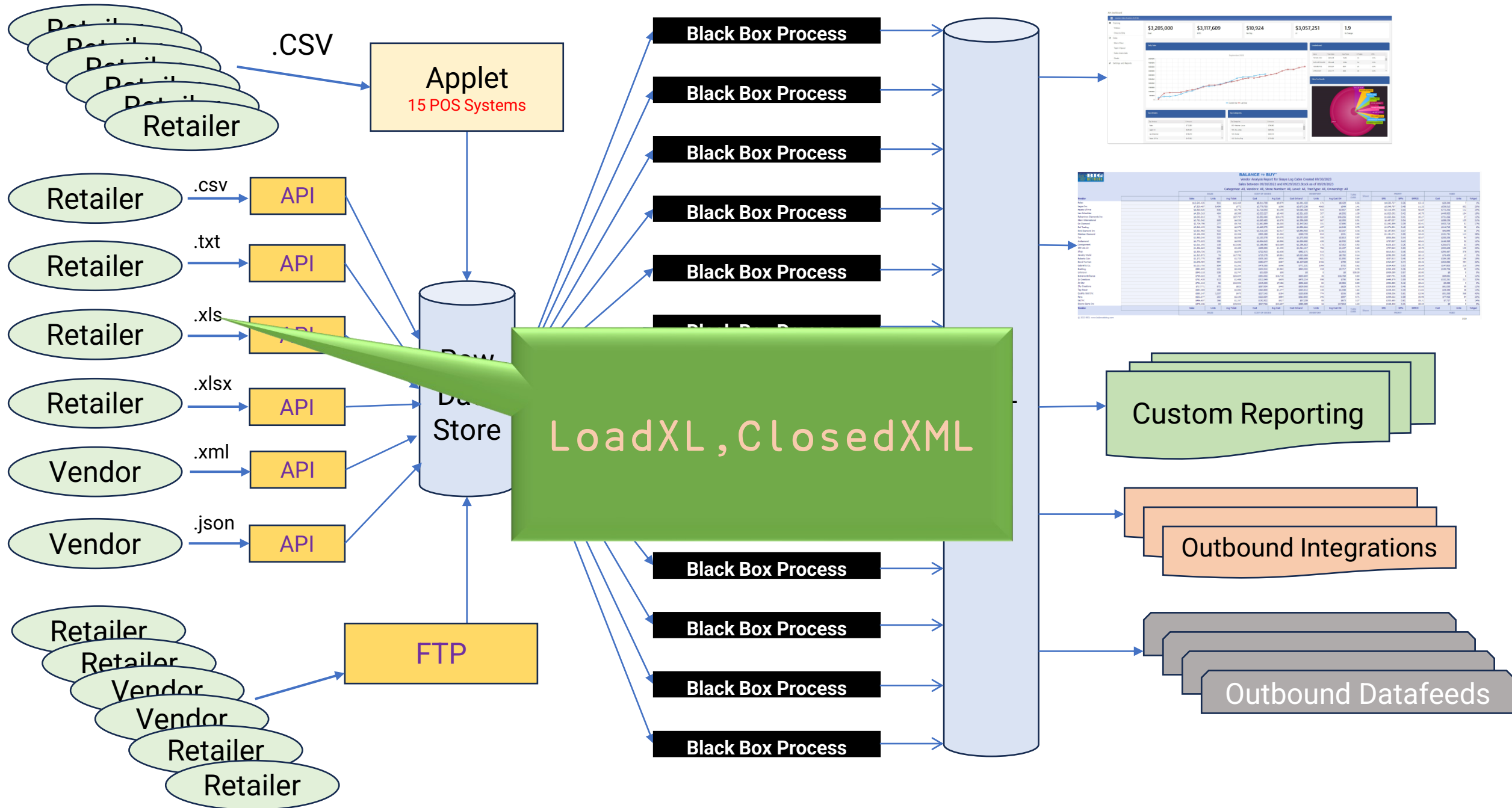


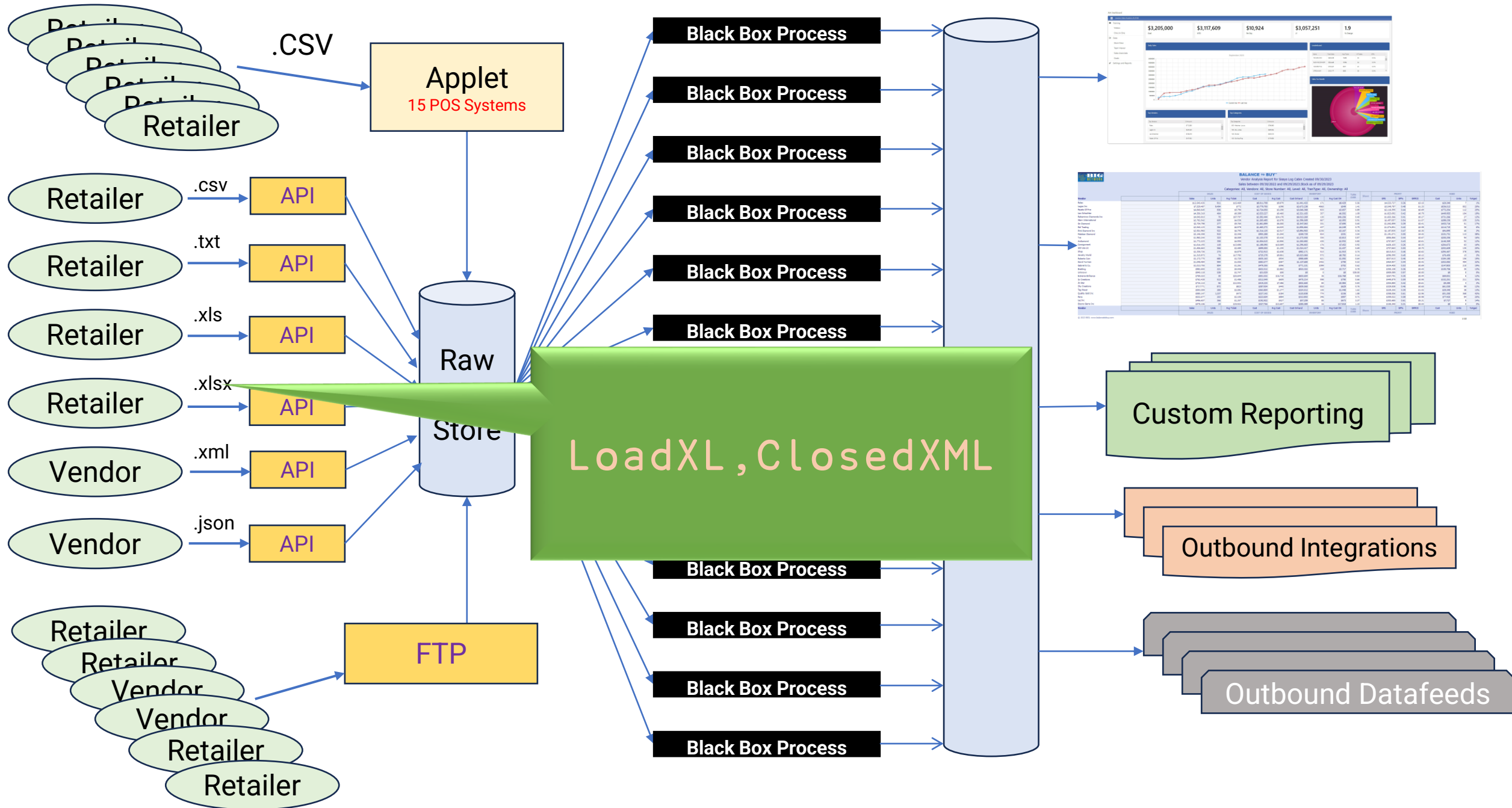


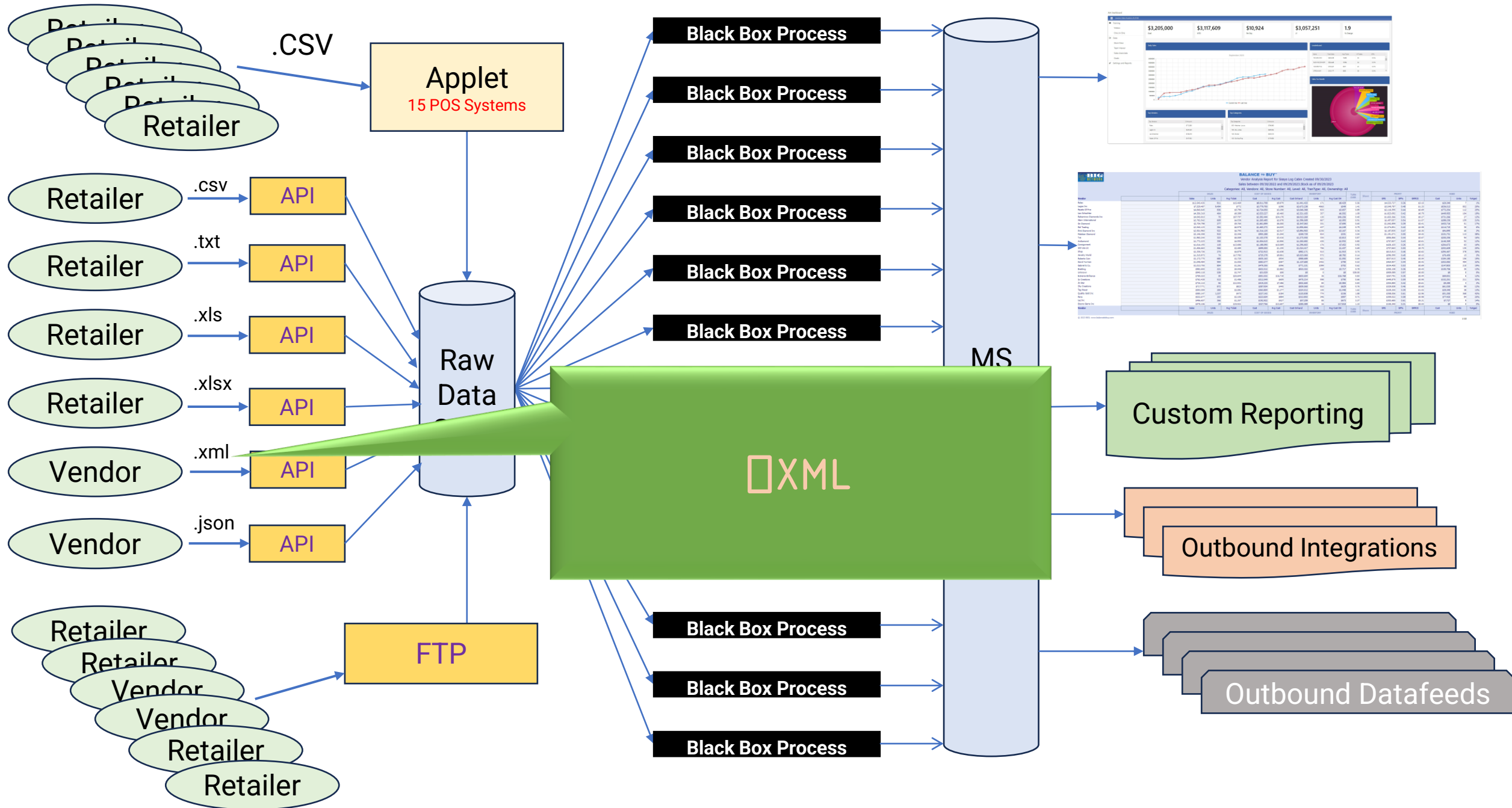


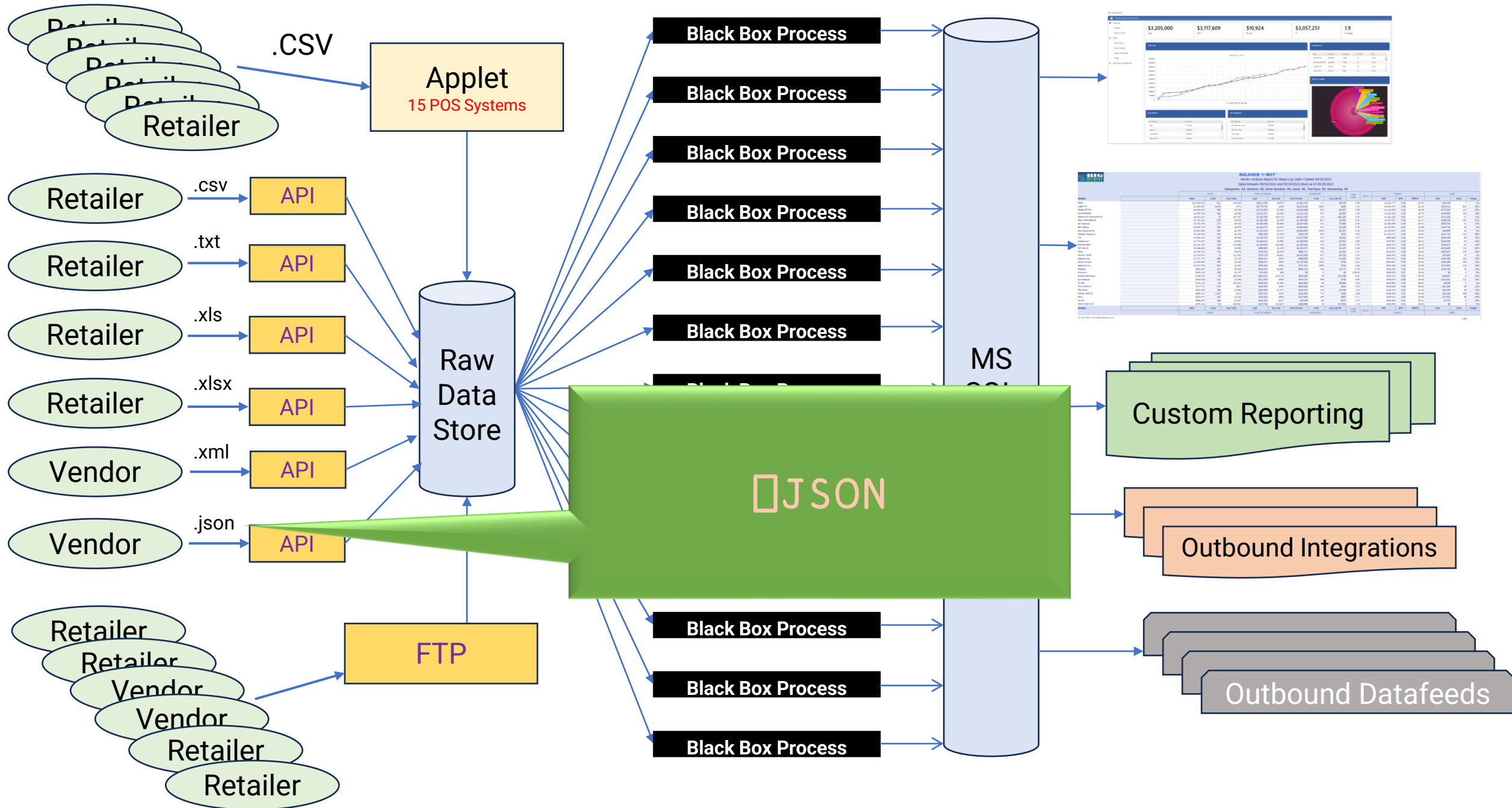


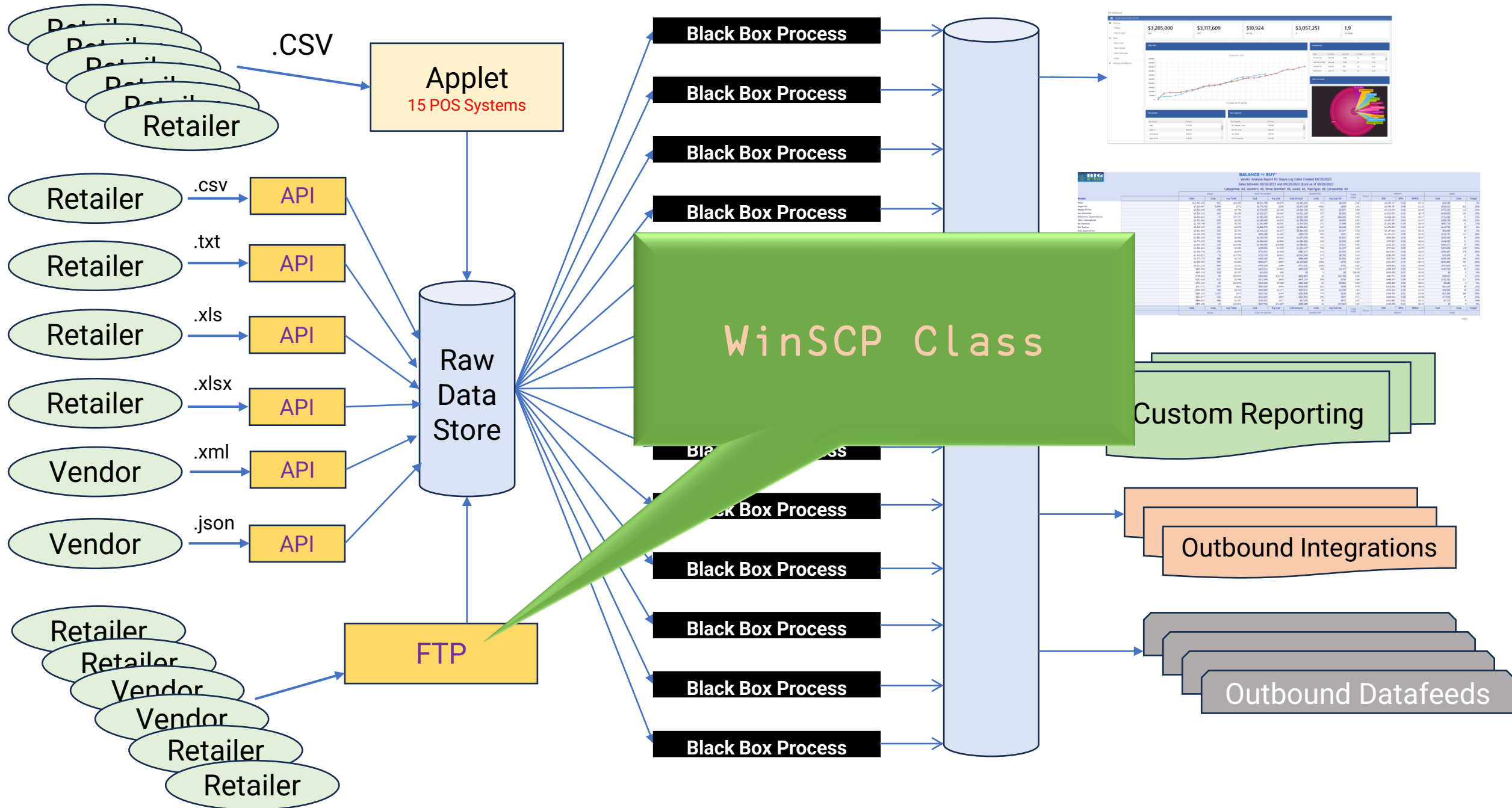


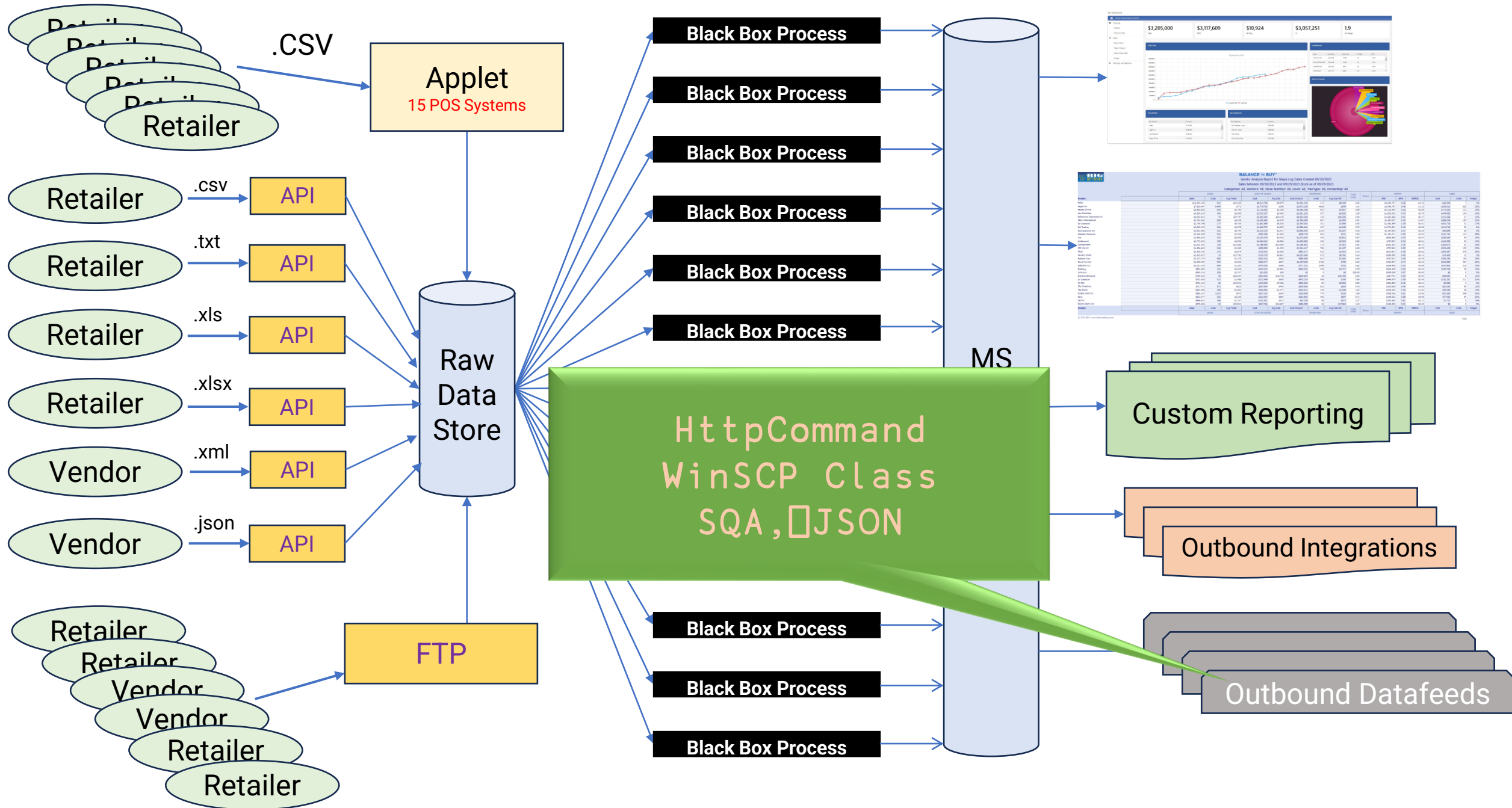


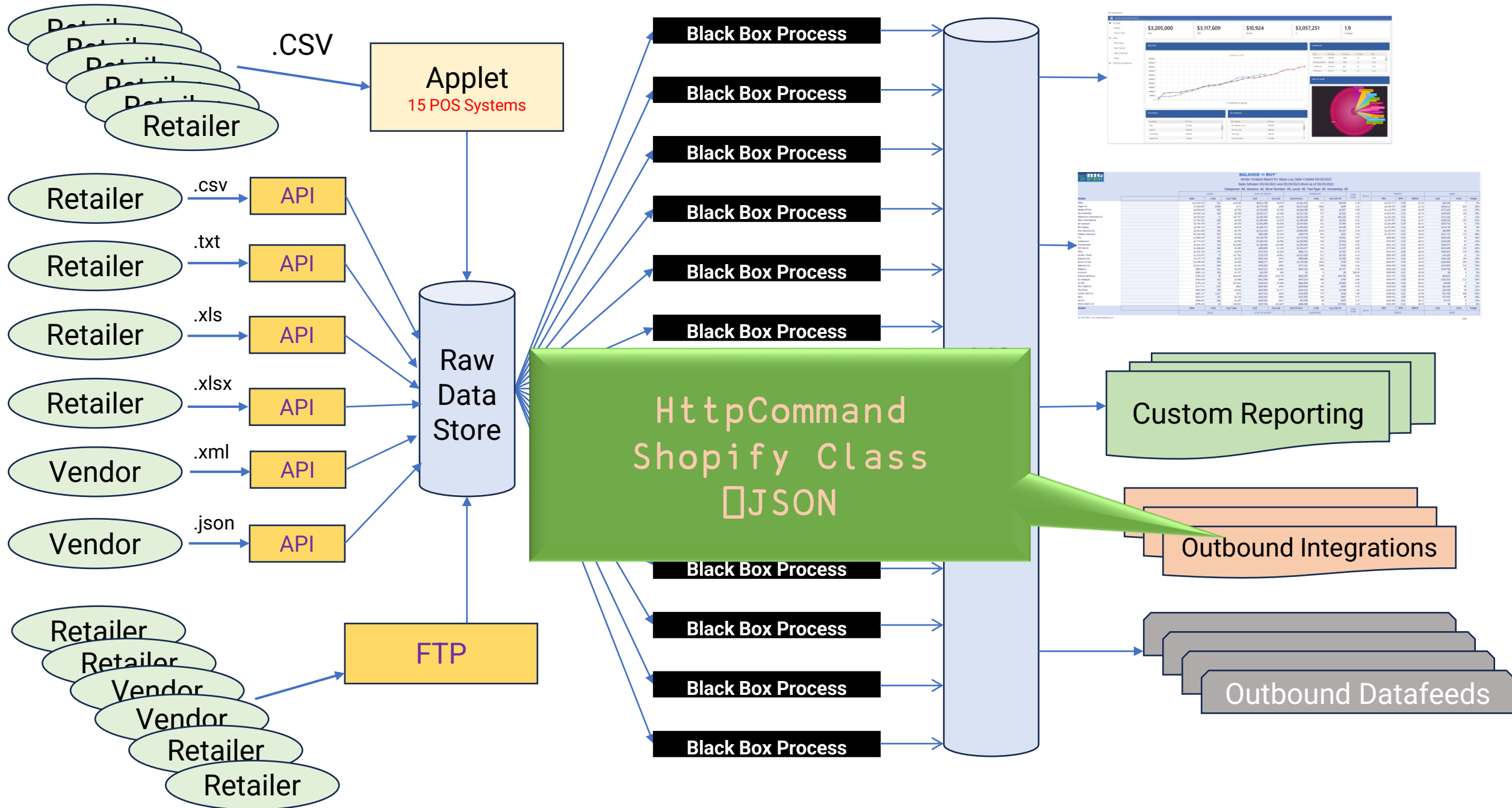


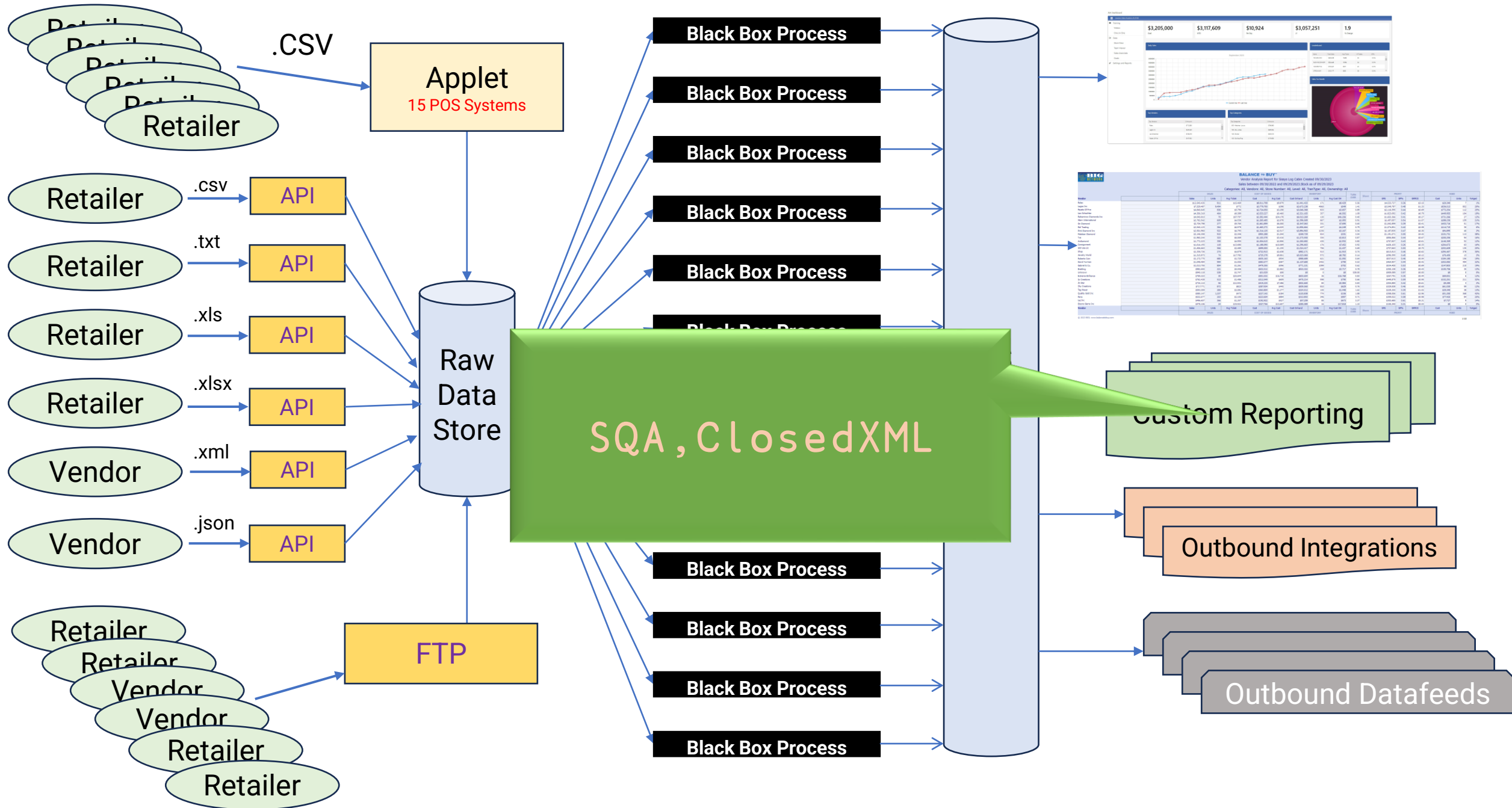


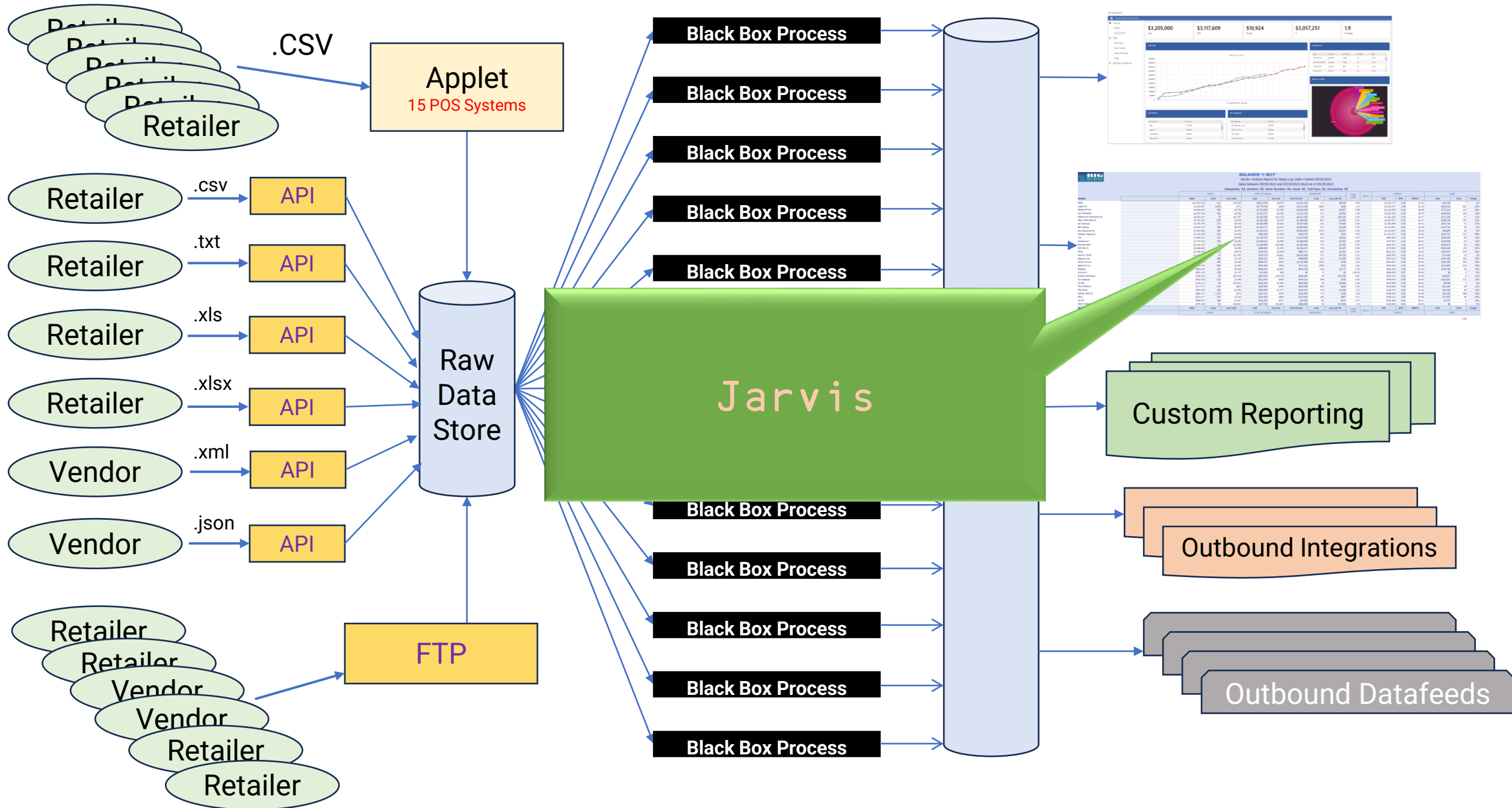


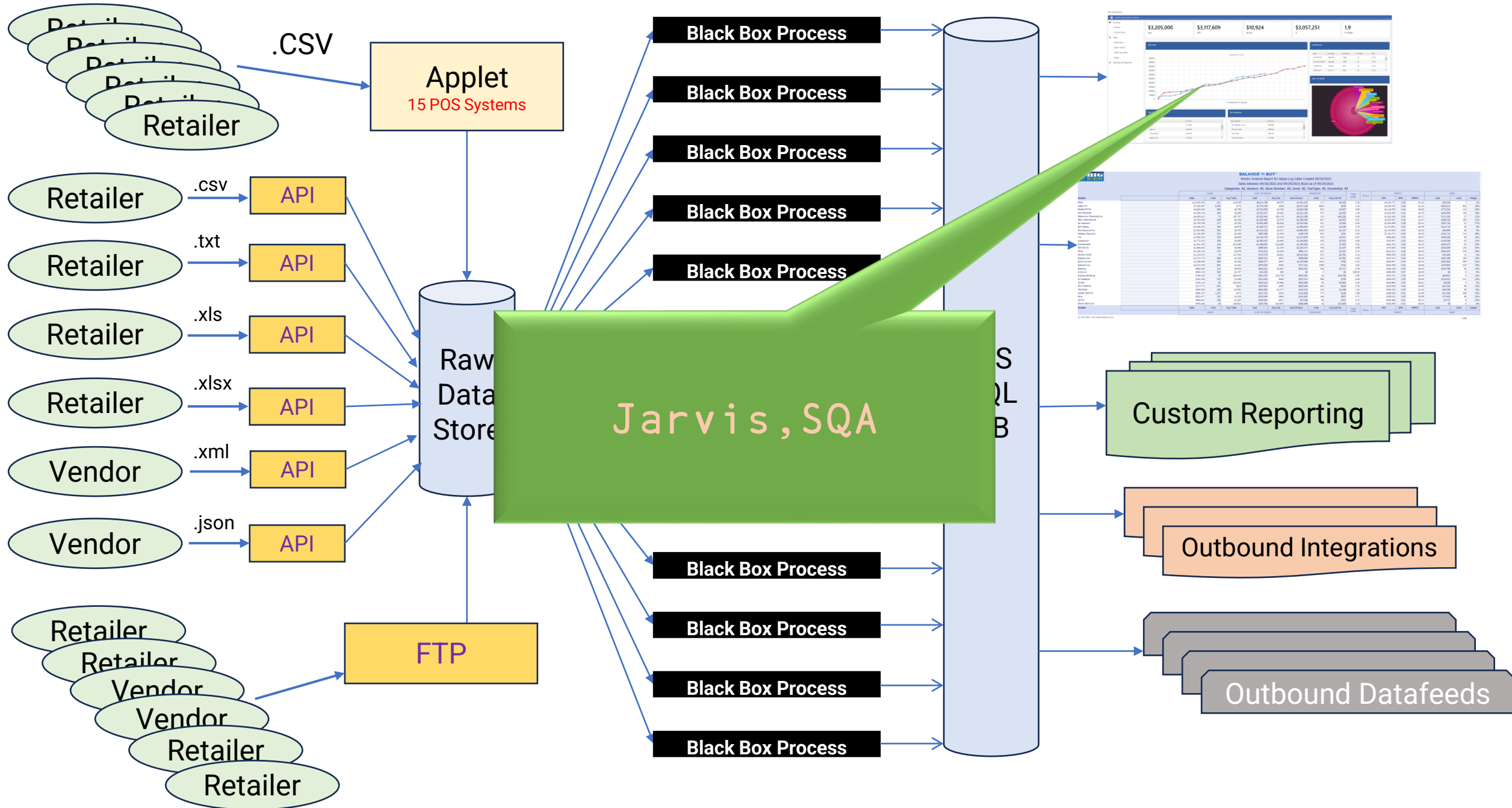


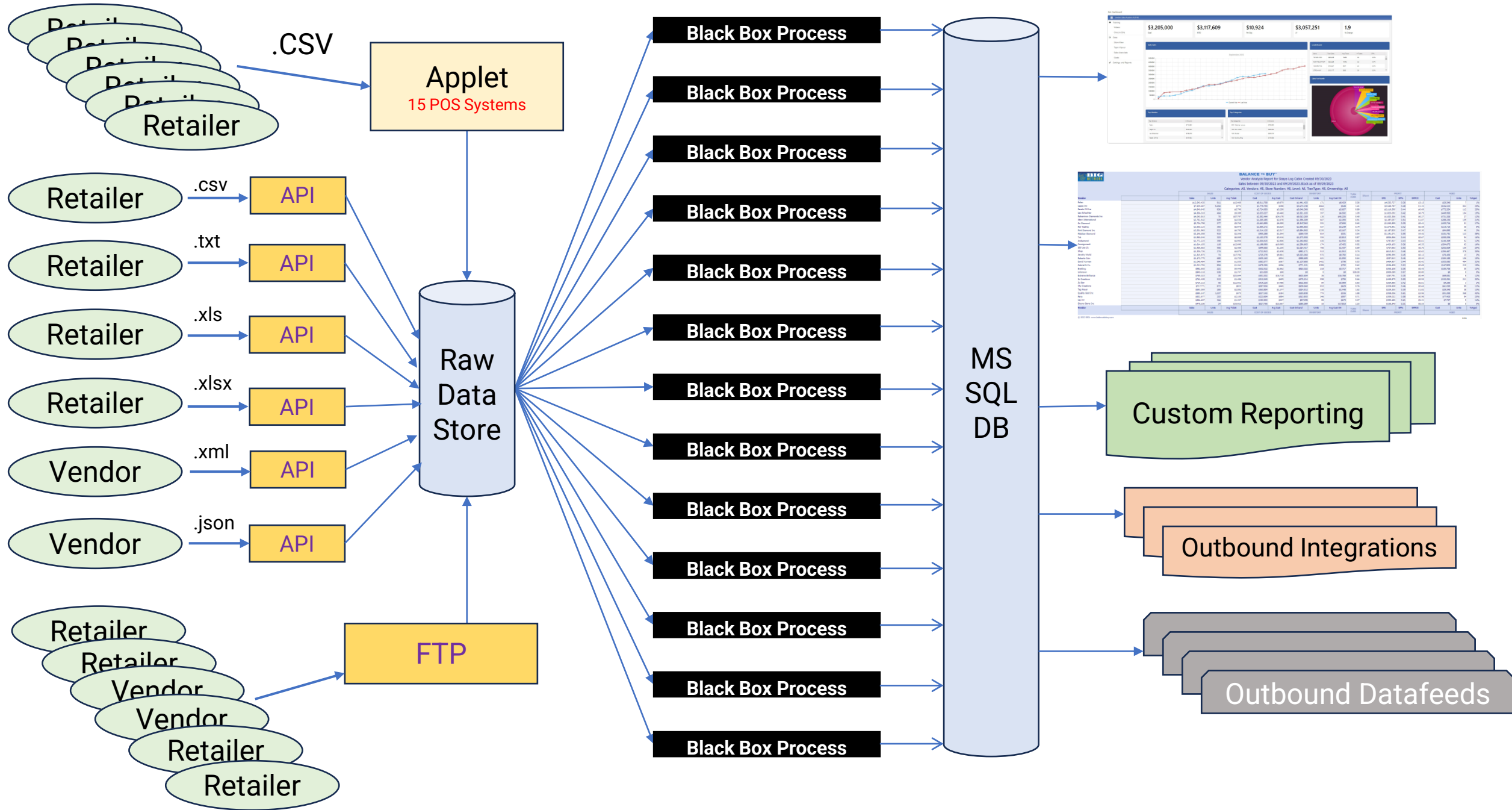












Training

- 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

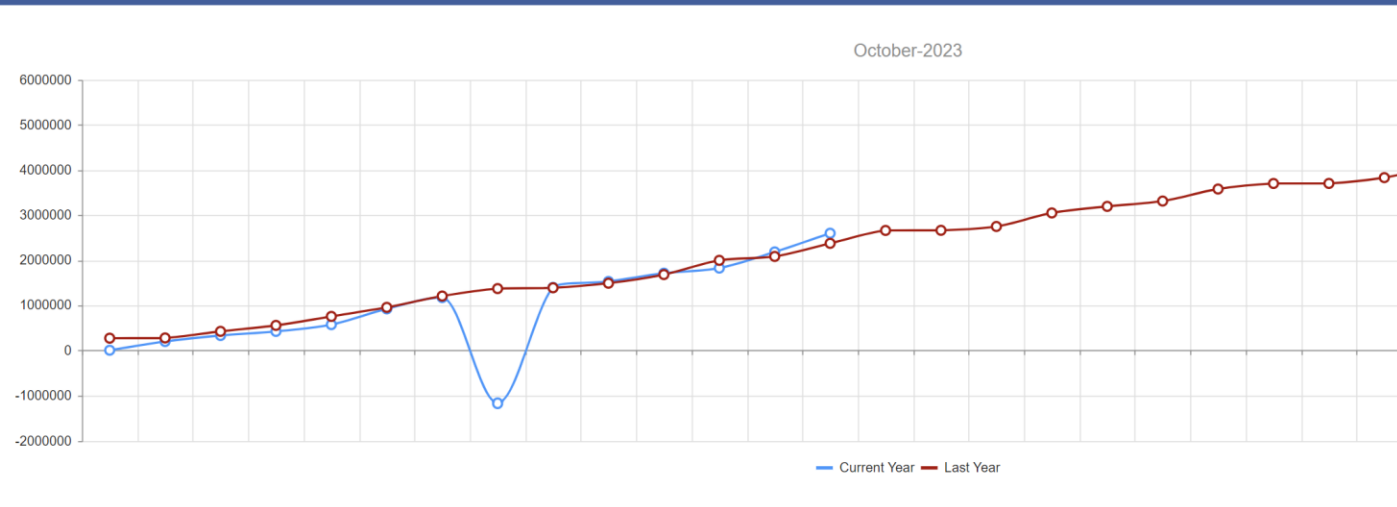
5.5

% Change New

19.2

% Change Average

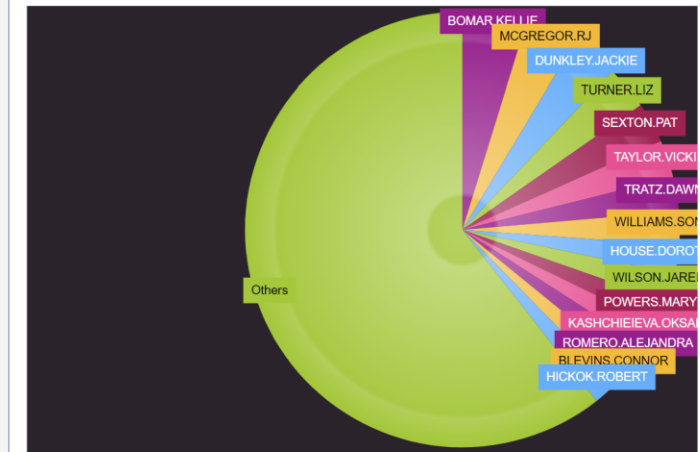
Daily Sales



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

New Production Environment

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

Thank you!

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