

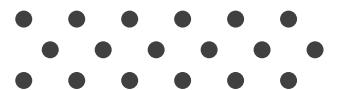


Straight Through Claim Processing

Solution Breakdown

Content

- Vision, Mission, Goal
- Problem Statement
- Product Evolution
- Client Evolution Fitment
- Aligned Solution Architecture
- Stages of Solution Delivery



Our Vision, Mission and Goal



Vision

Frictionless Claim Experience
Automated Claim Entry
Lights-out business



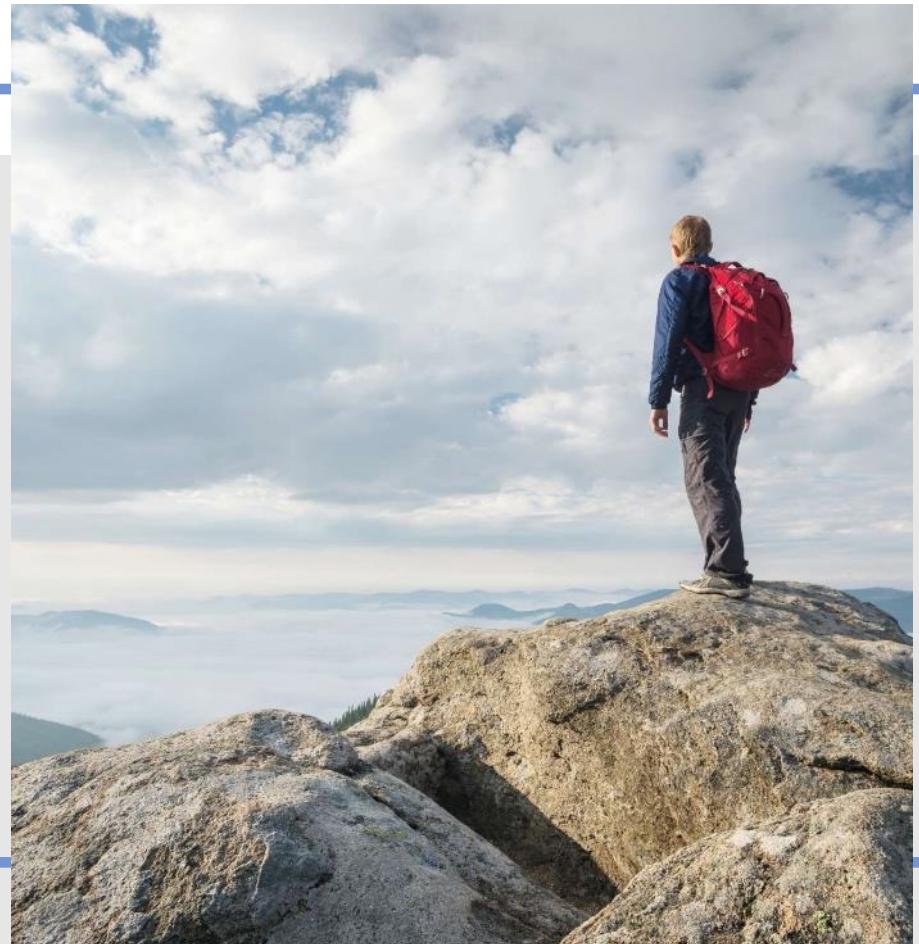
Mission

Direct Integration, KYC and Single Invoice



Goal

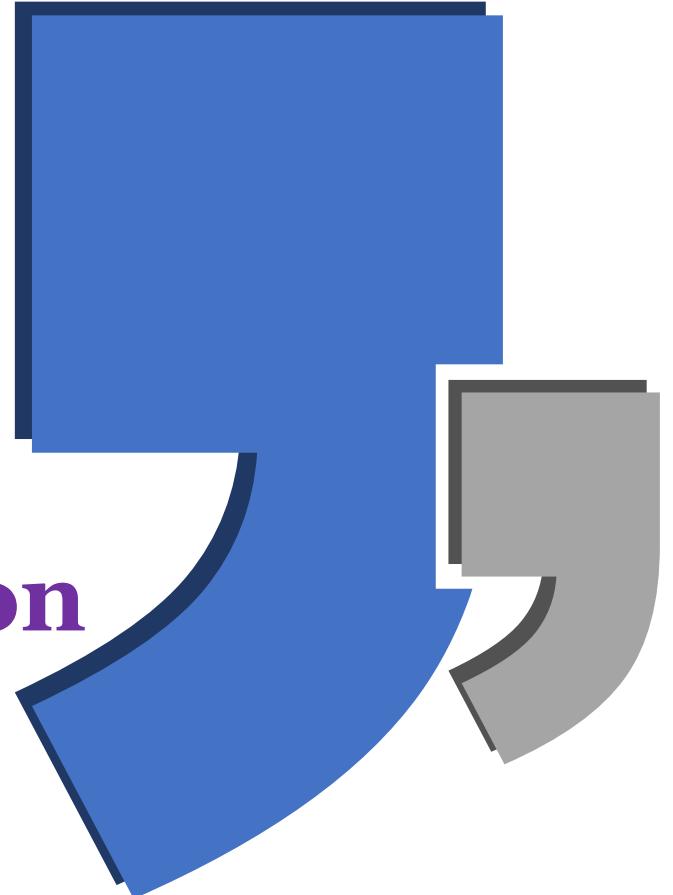
Streamline the Claim Process: STP



Quotes

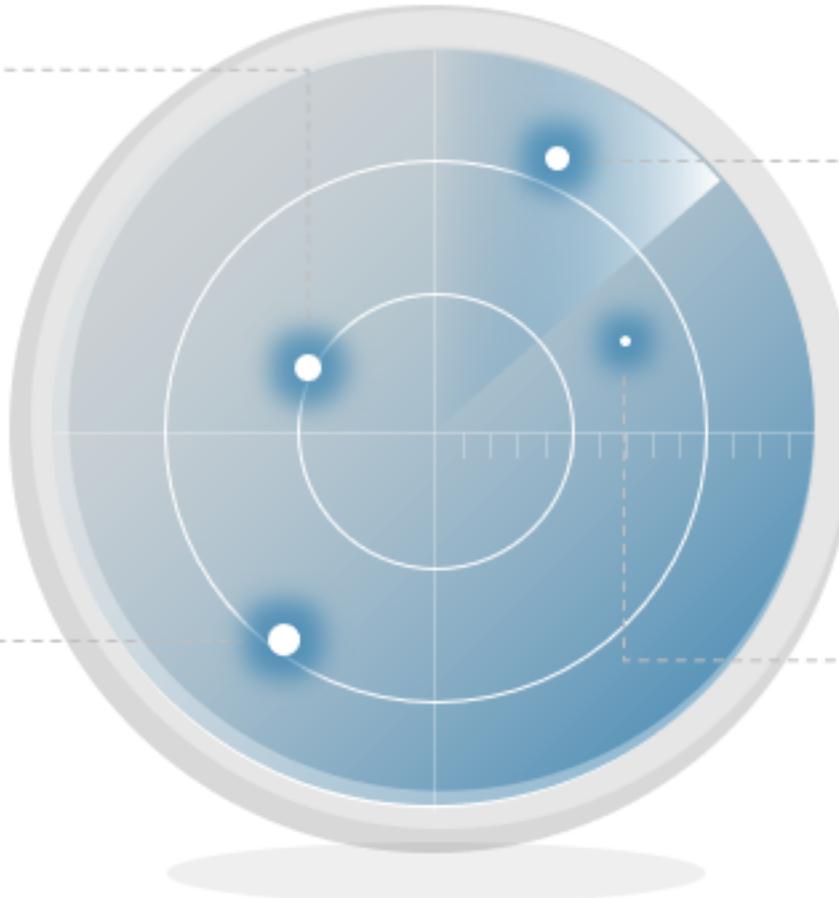
Opportunity is missed by **most people** because it dresses in **overalls** and looks **like work.**

...Thomas Edison



Product Strategy

Leverage Off the Shelf
Cloud Services



API First Product
Strategy

Iterative Product
Innovation

New Services: Sales
Data Capture &
Storage, Multi Module
Program Qualification,
UX

Product Evolution

	Release 0.5	Release 1.0	Release 2.0	Release 3.0	Release 4.0	Release 5.0
360 Milestone	Dish Migration to Platform	STP for Consumer Rebates	STP for Consumer Rebates	POS Automation	Direct Dealer Integration with API, Portal, SFTP	Provisioning Capability for Channel Incentive Manager
Hero Use Case	STP for Direct to consumer prequalified rebate processing	STP for integration with sales/cons data for consumer rebates	Same as version 1.0 with “Click to Collect” Consumer Experience & Sub 5 minute payment	STP Automation for all POS files currently uploaded into 360 Platform	Dealer logs into a portal and self service data config and creates data pipeline	Implementations can provision channel incentive manager for fast roll out
	SFTP Sales Data Ingress	Platform Sales Data Store	API based Sales Data Integration	Sales Data Ingress Notifications	Channel Incentive Manager - Product	Provisioning Capability for all Channel Incentive Manager
Platform Capability		Upfront Risk & Compliance Automation	Platform Sales Data Store	Sales Data Ingress Reporting	Click to Collect User Journey – SPIFF, STA, IR	
		Upfront Promotional Rules Automation	Upfront Risk & Compliance Automation	Multi Program Qualification	EDI Translator	
		Closed Loop Reporting	Upfront Promotional Rules Automation			
			Sub 5 minute claim fulfillment (inline fulfillment)			
			Click to Collect Experience			
	Q3 - 2020	Q4 - 2020	Q1 - 2021	Q2 - 2021	Q2 - 2021	

B2C

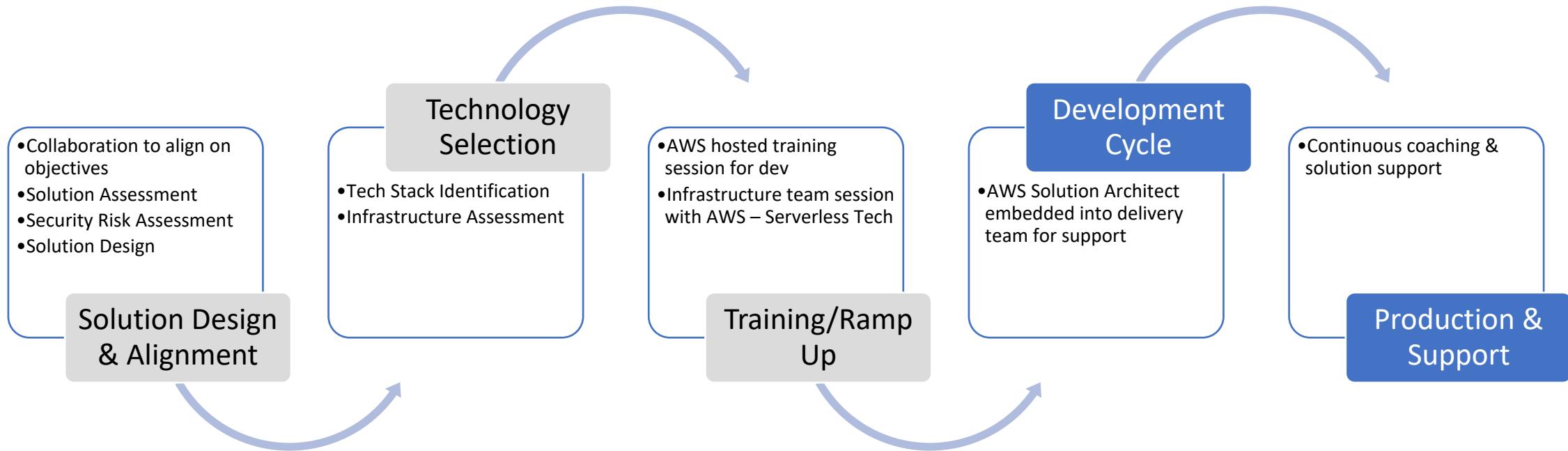
B2B

Client Evolution Fitment

Functional Deliverable / Product Fit Straight Through Processing Consumer Rebates	Standard	Standard Plus	Custom	Supported STP configurations Version 0.5 Goal: Migrate Dish to Platform	Added Supported STP configurations Version 1.0 Goal: In market STP offering for Consumer Rebates
Launch window:	weeks	months	quarters		
Transactional Data Ingress			<input checked="" type="checkbox"/>	- Sales data submitted via SFTP - Recommended PGP encryption - No support for signed file verification (encryption)	No change from 0.5 > 1.0
Sale Data Authentication				- Sales data is not subject to scrutiny as it is provided by a trust worthy party	- Need to ideate based on RAC feedback - 100% developer provisioned - 'data provider' can be 360 brand (traditional rebate sponsor) or another data aggregator - duplicate ingress data can be identified by the data provider specific rules and can be based on a single unique identifier (sales invoice id) that is globally unique to the provider or a combination of data points that can create a unique identifier (sellerId + Invoiceld) - Sales data will not be subject to authenticity validation as it is provided by a trusted party who does not directly benefit from the incentive
Master Data Ingress			<input checked="" type="checkbox"/>	- Item catalog can be imported through web interface from standard excel file structure or via SFTP based data feed - Seller (sales channel) can be imported through web interface from standard excel file structure or via SFTP based data feed	- item-serial can be imported through web interface from standard excel file structure or via SFTP based data feed

<https://360in.sharepoint.com/:x/g/Product%20Central/EQ4frwnPurlJknMJd83mpj4BhoMiBfegmXqgT25NDJ2gow?e=lgFaAE>

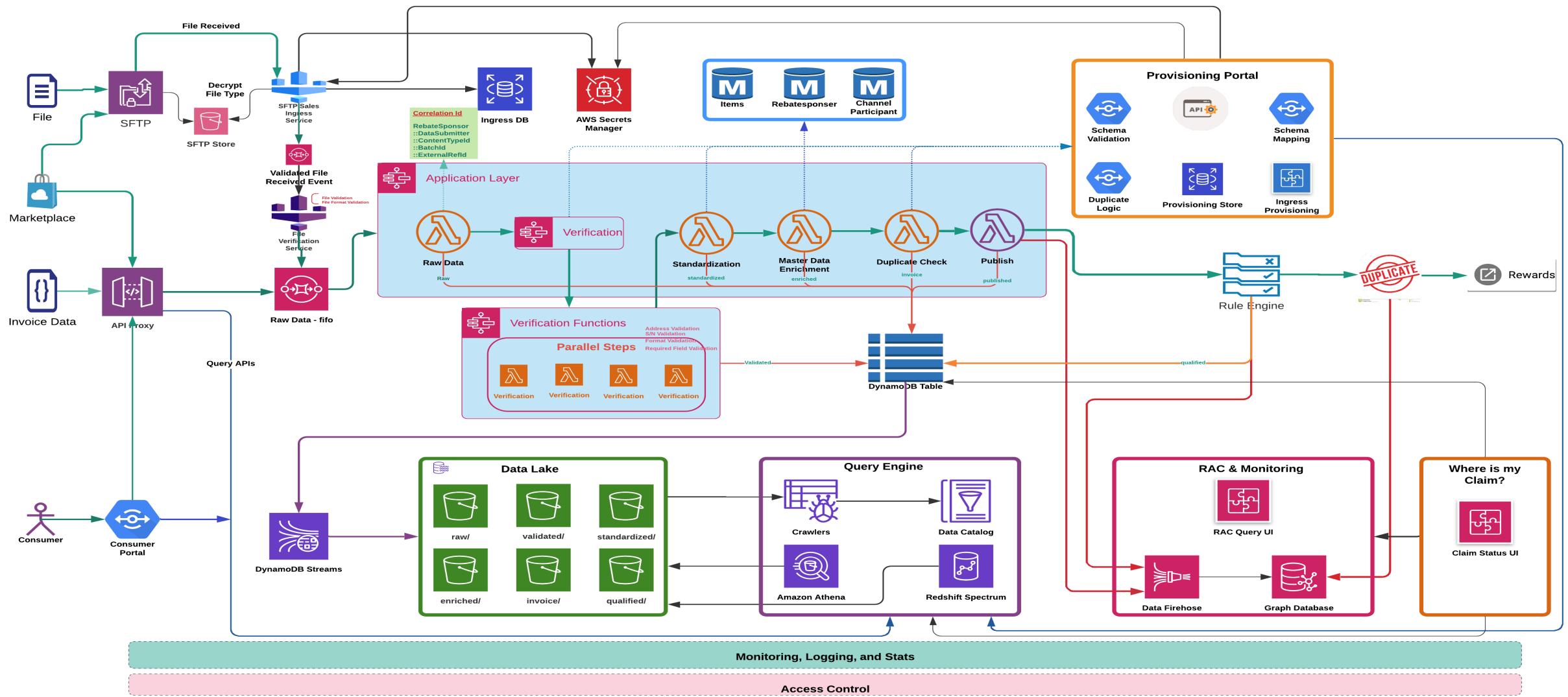
AWS Partnership



Platform Architecture Evolution

	B2C				B2B	
	Release 0.5	Release 1.0	Release 2.0	Release 3.0	Release 4.0	Release 5.0
ETL	Data Lake – Schema less Sales Data Store	Cloud Based API Sales Ingress	Multi-Module Identifier	Channel Incentive Manager Portal	Channel Incentive Manager Portal Provisioning	
Schema Based Sales Data Store	Serverless Sales Data Validation	Priority Message Queue	Serverless Sales Data Multi-Module Validation	Chanel Claims with status = staged		
Ingress Security Enhancement	Data warehouse – Closed Loop Reports	Click to Collect experience with CMS Integration	Ingress Provisioning Portal – SFTP & API	EDI Adaptor		
Dedicated Consumer Claim Processor	Next Gen Master Data Store Schema	Consumer Claim with status = staged	Identity Access Management – Internal Persona	Identity Access Management – Internal Persona		
	Event based Rule Engine	Sub-second claim payout				
	Logs, Stats, & Monitoring	Sale Data Validation Provisioning Portal				
	Dedicated RAC Data Store					

Aligned Solution Architecture



Solution Components

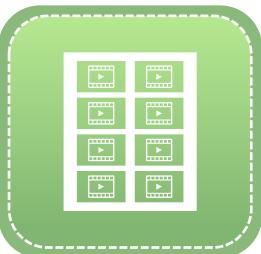
Sales Data Ingress

- Ingress Service
- File Verification Service



Application Layer

- Verification Step
- Standardization Step
- Enrichment Step
- Invoice Duplicate Check



Rewards

- Core Sub
- Core



Program Qualification

- Rule Engine
 - Event Based Qualification
 - Publish Outcome Event

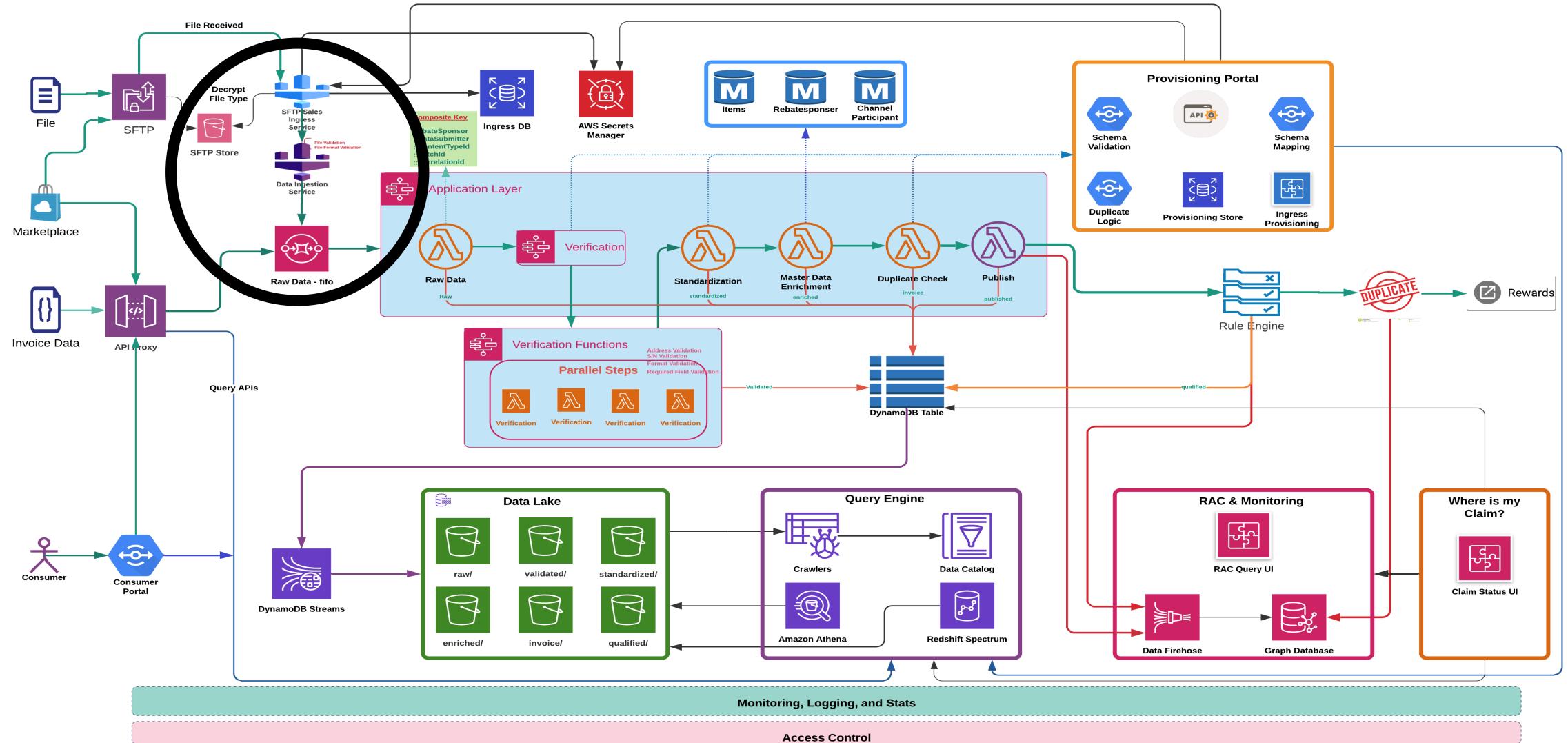


Insights & Reports

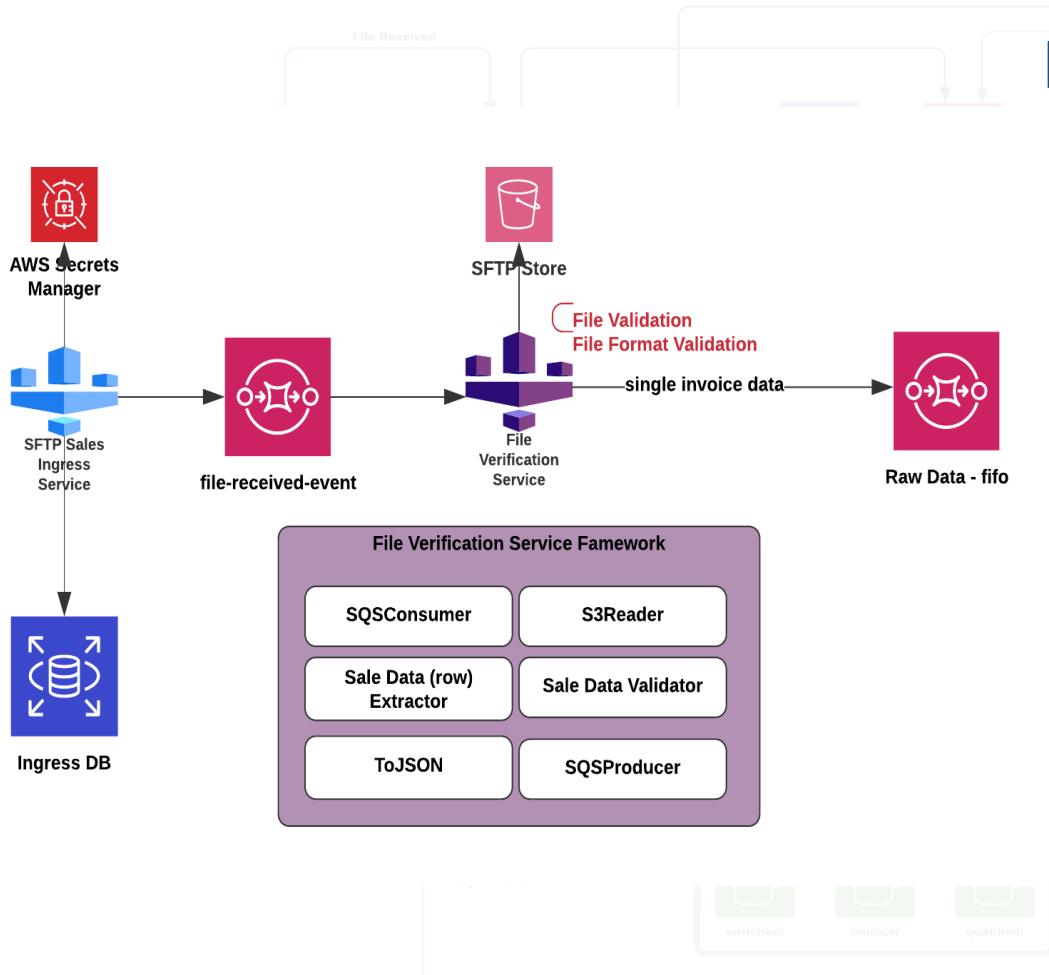
- Data Lake
- Query Engine
 - Athena
 - Redshift Spectrum
 - Crawler
 - Catalog
- Data Warehouse



Aligned Solution Architecture



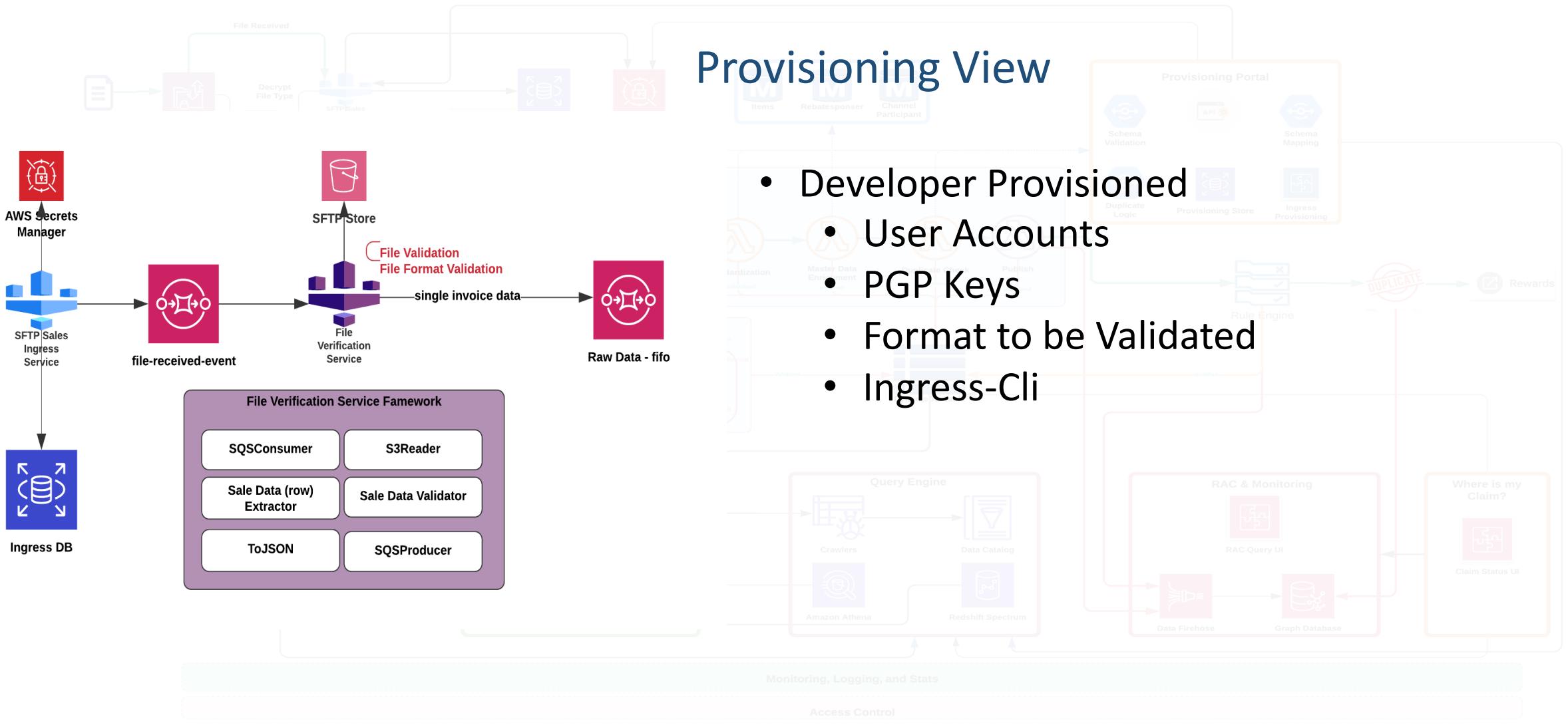
Aligned Solution Architecture: Sales Data Ingress



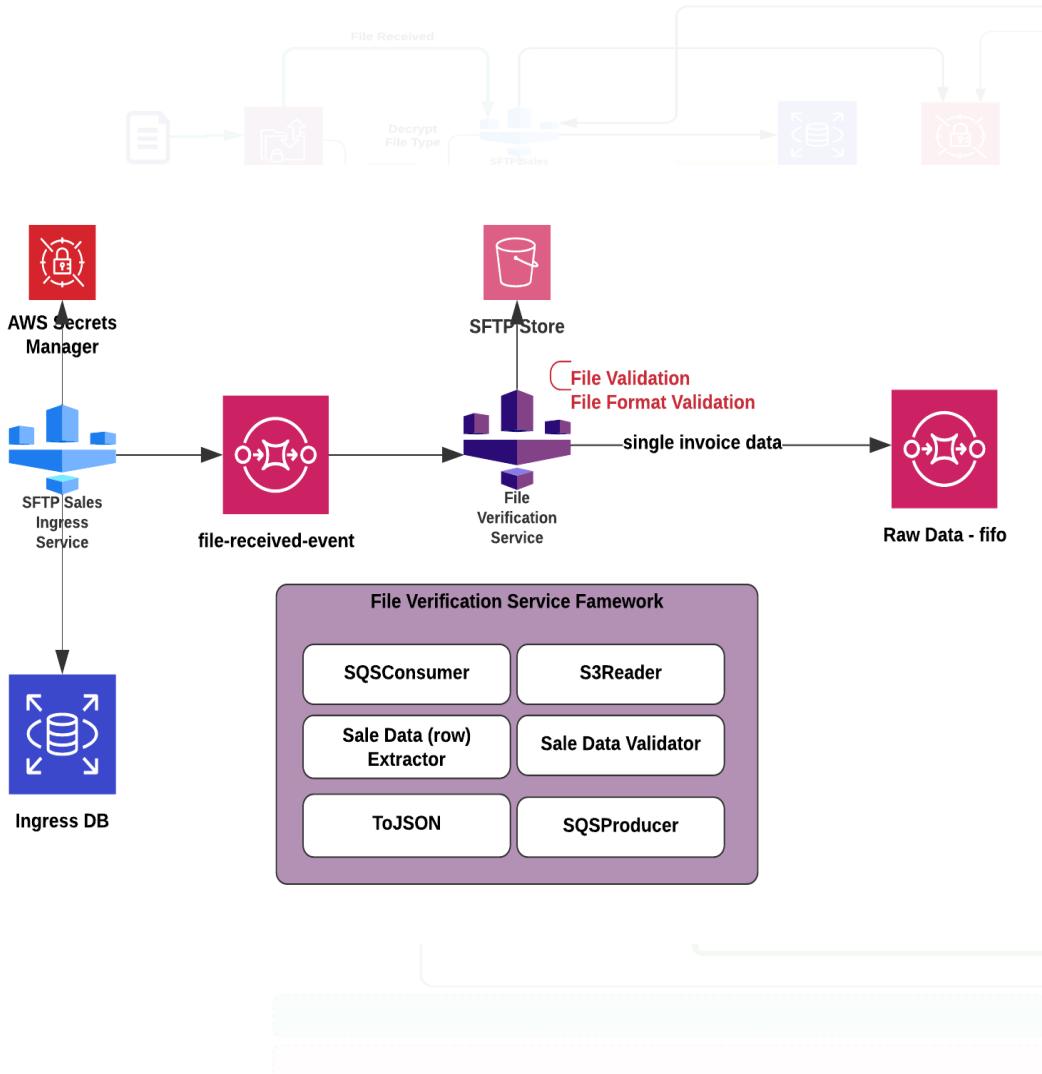
Infrastructure View

- **Ingress Service**
 - **SQS Integration**
- **File Verification Service**
 - **Lambda?**
 - Query S3 file
 - File Row(single invoice/transaction) Validation
 - File Row Format Validation
 - Publish Row Level Message to SQS Queue
 - X-Correlation-ID Header - UUID

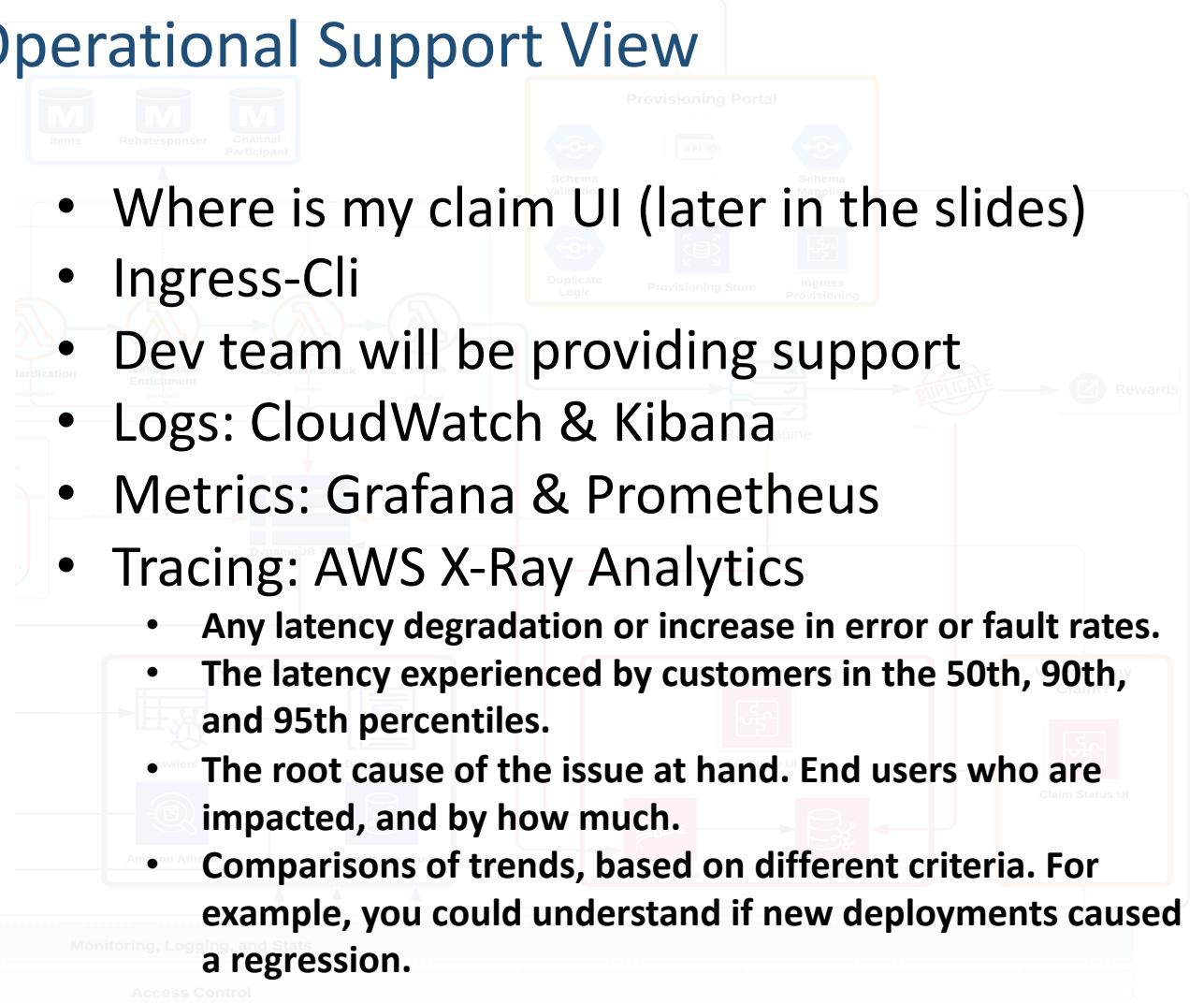
Aligned Solution Architecture: Sales Data Ingress



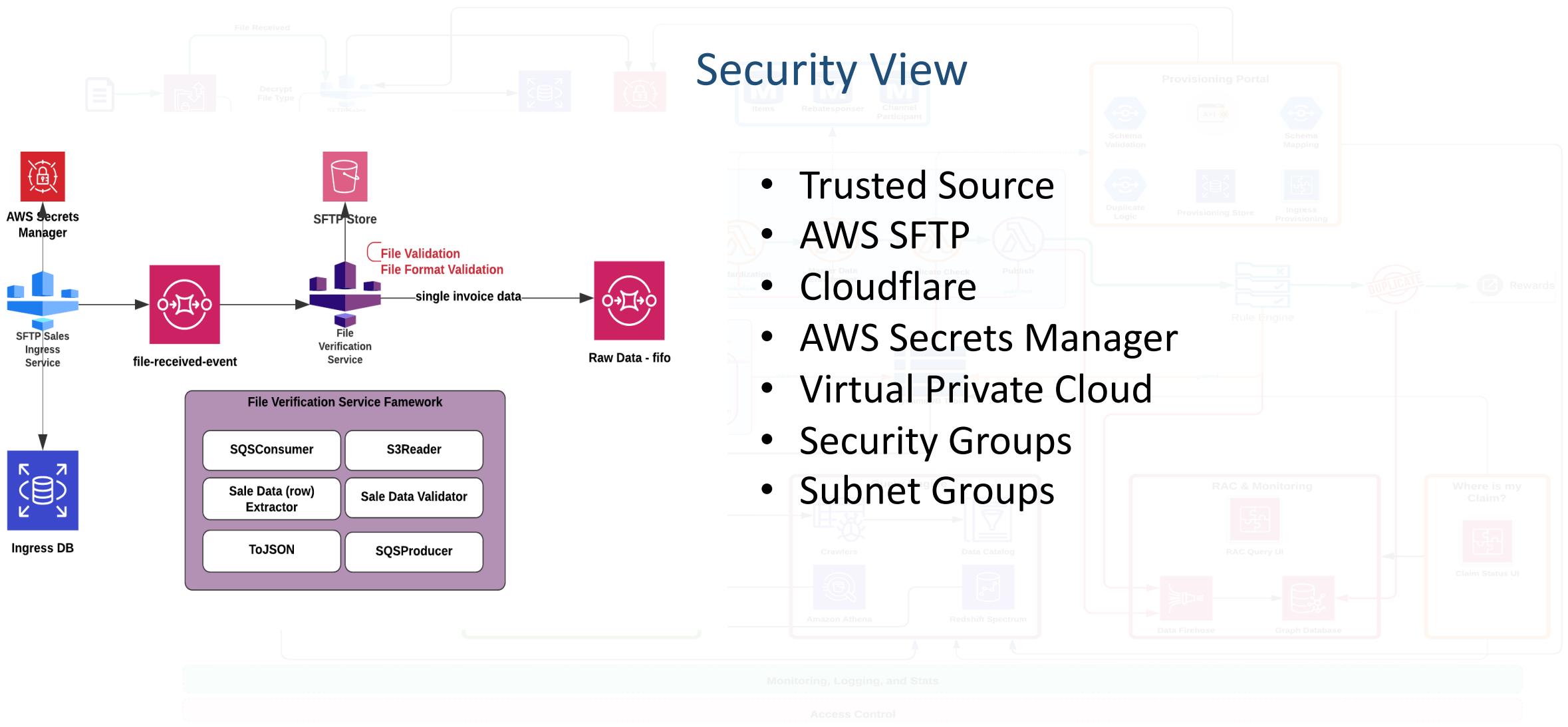
Aligned Solution Architecture: Sales Data Ingress



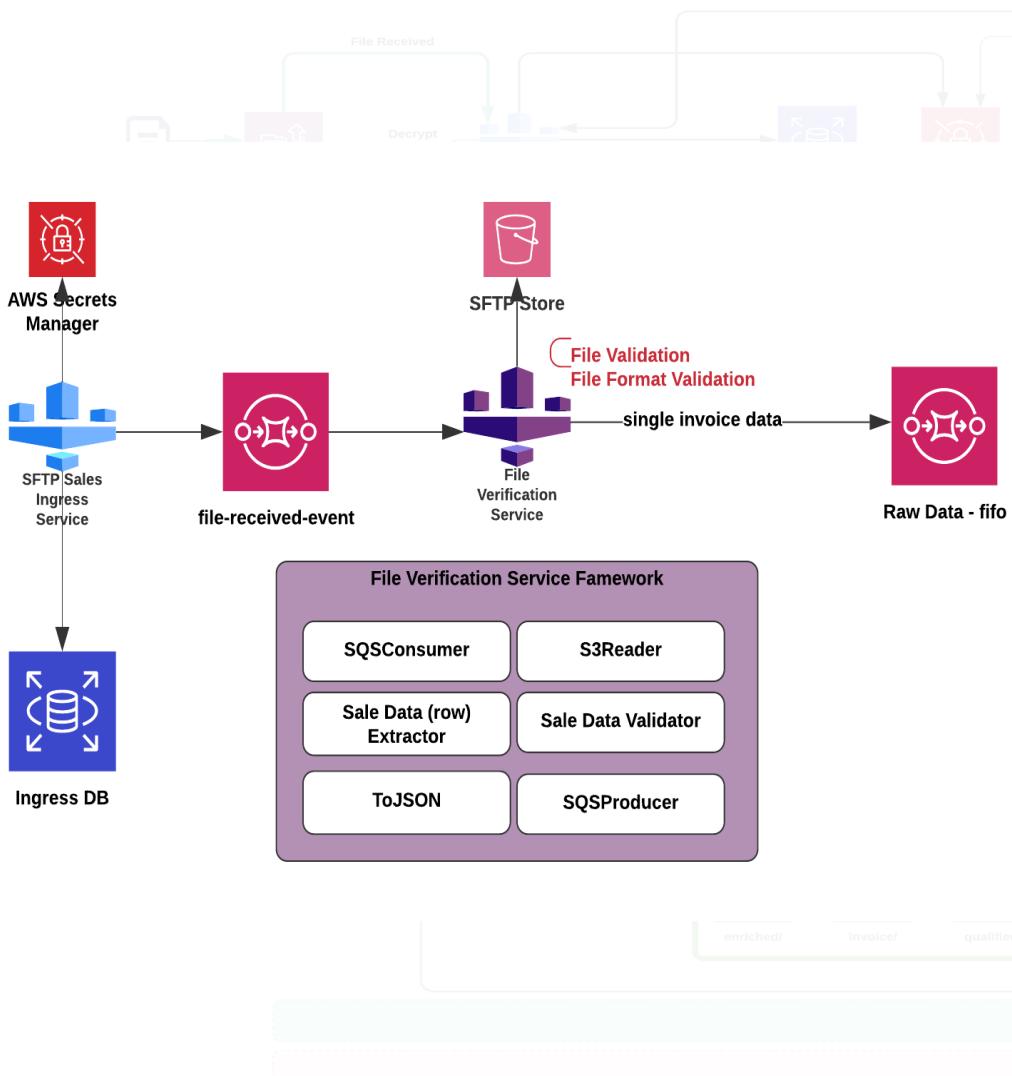
Operational Support View



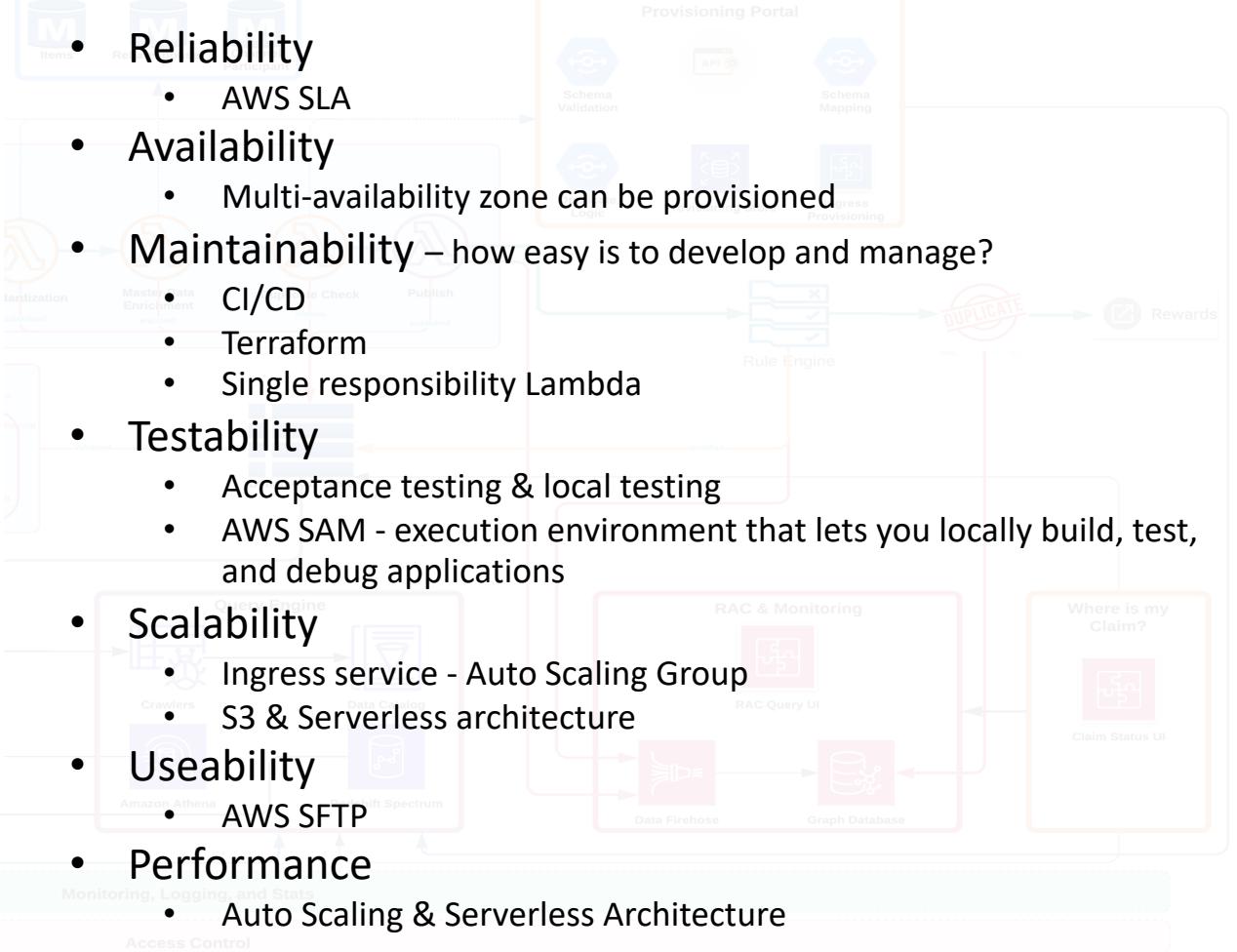
Aligned Solution Architecture: Sales Data Ingress



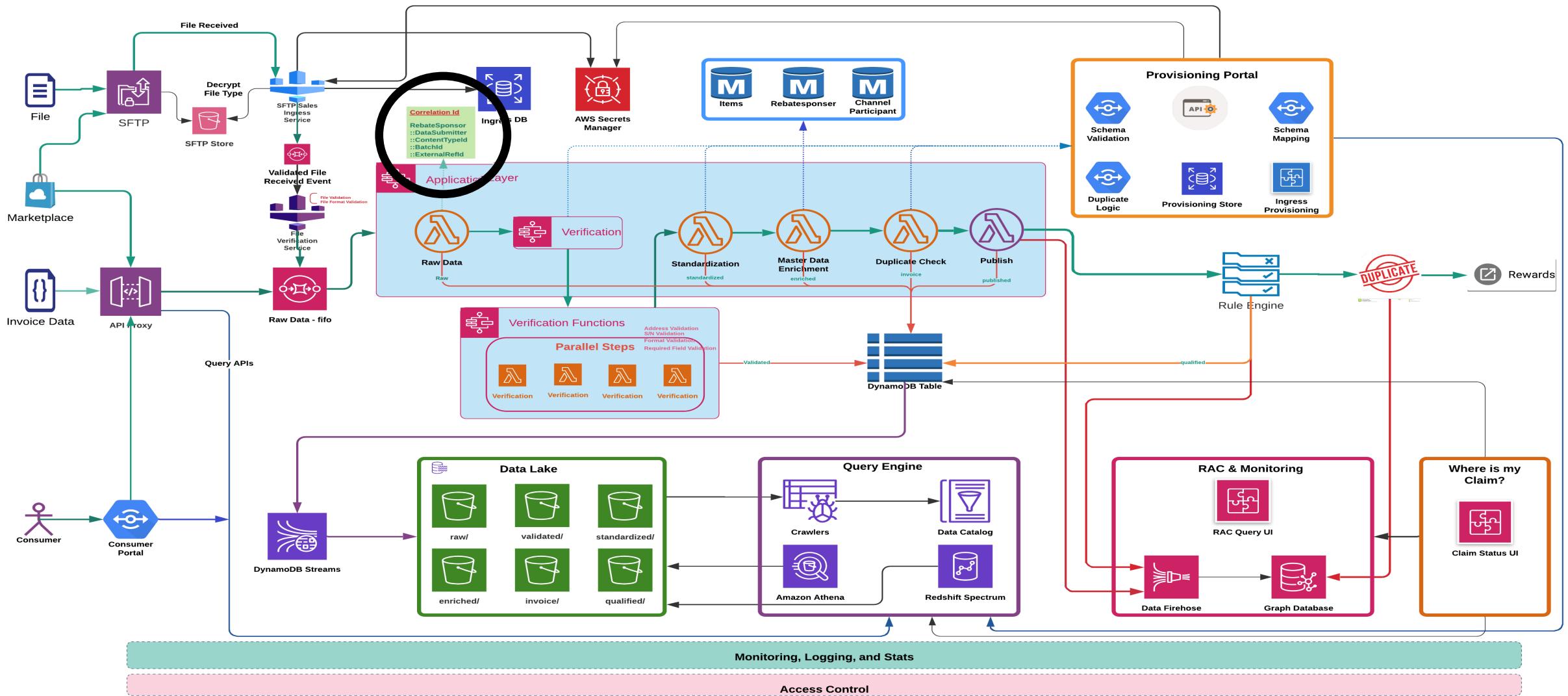
Aligned Solution Architecture: Sales Data Ingress



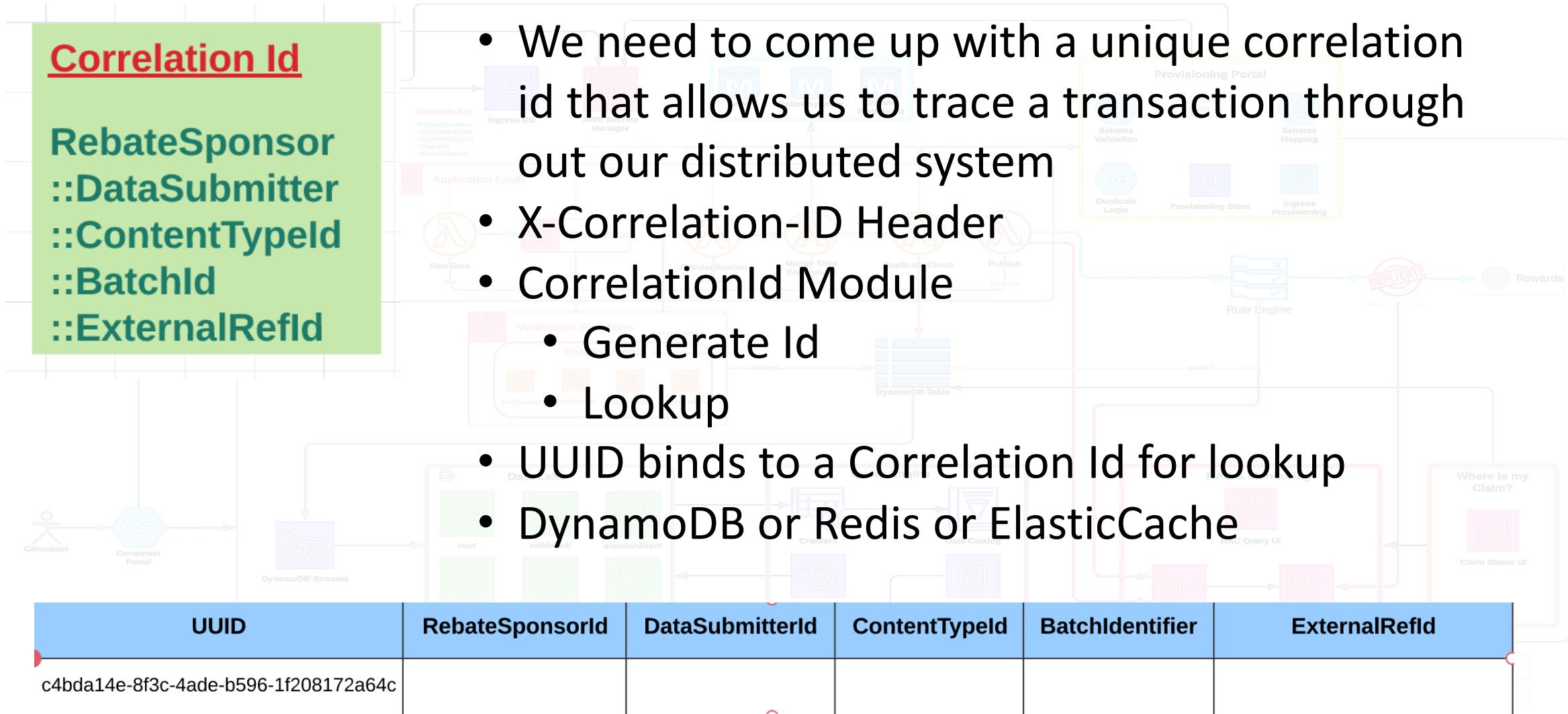
Non-Functional Requirement



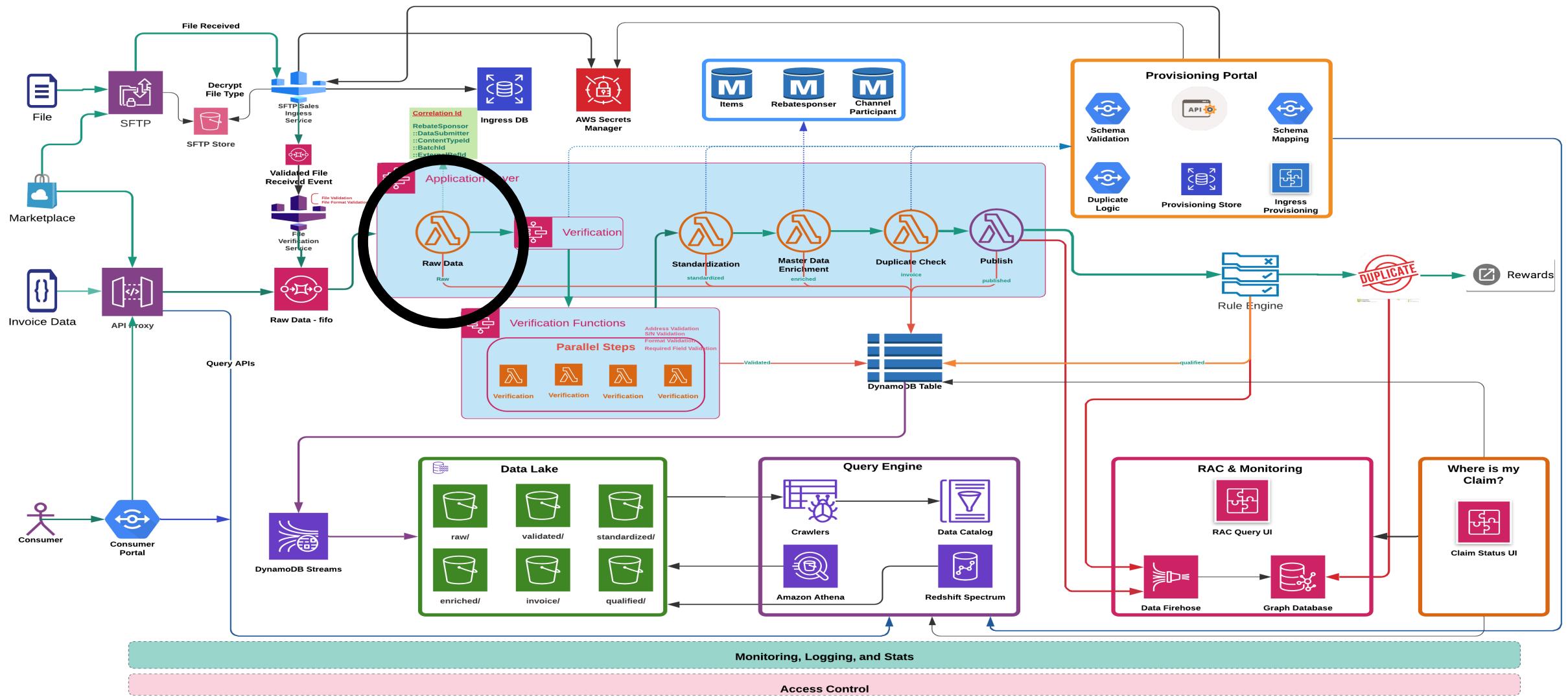
Aligned Solution Architecture



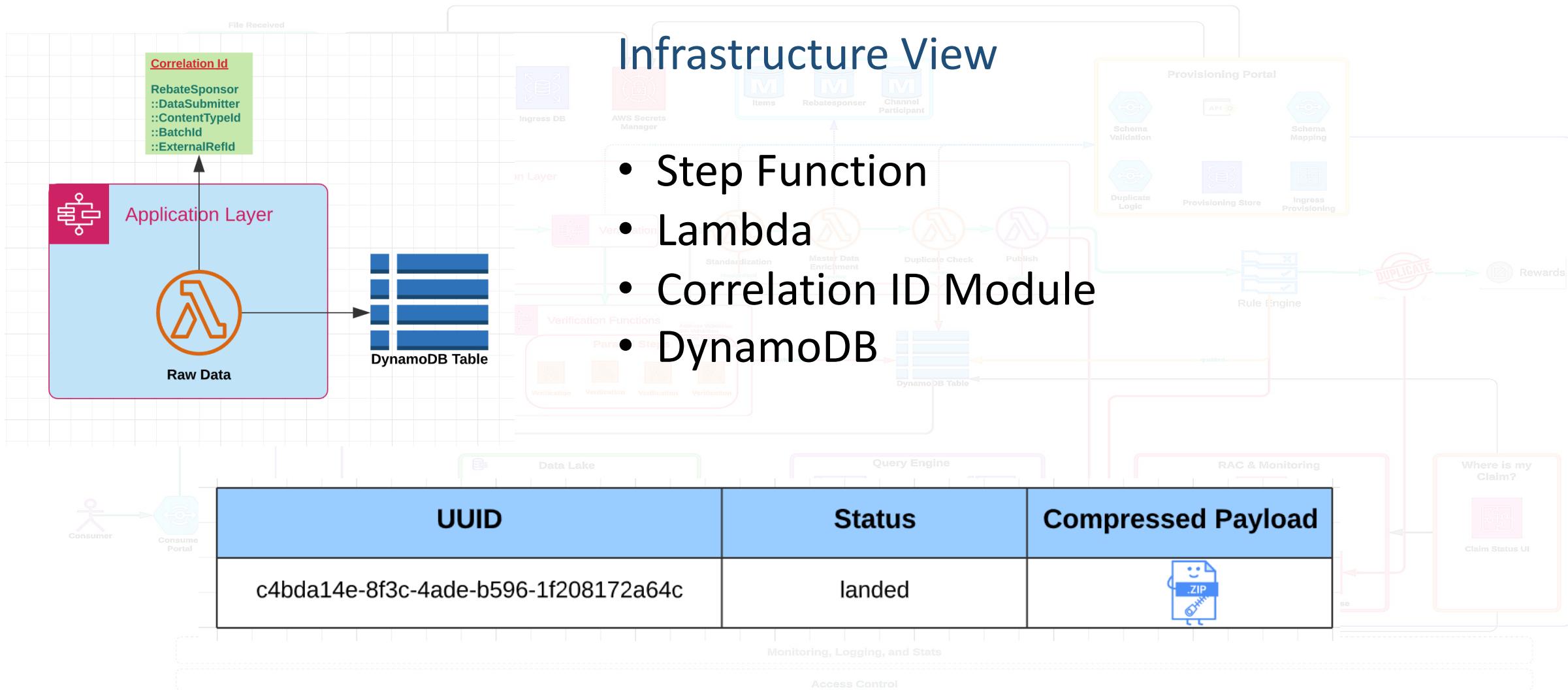
Application Layer: Correlation ID



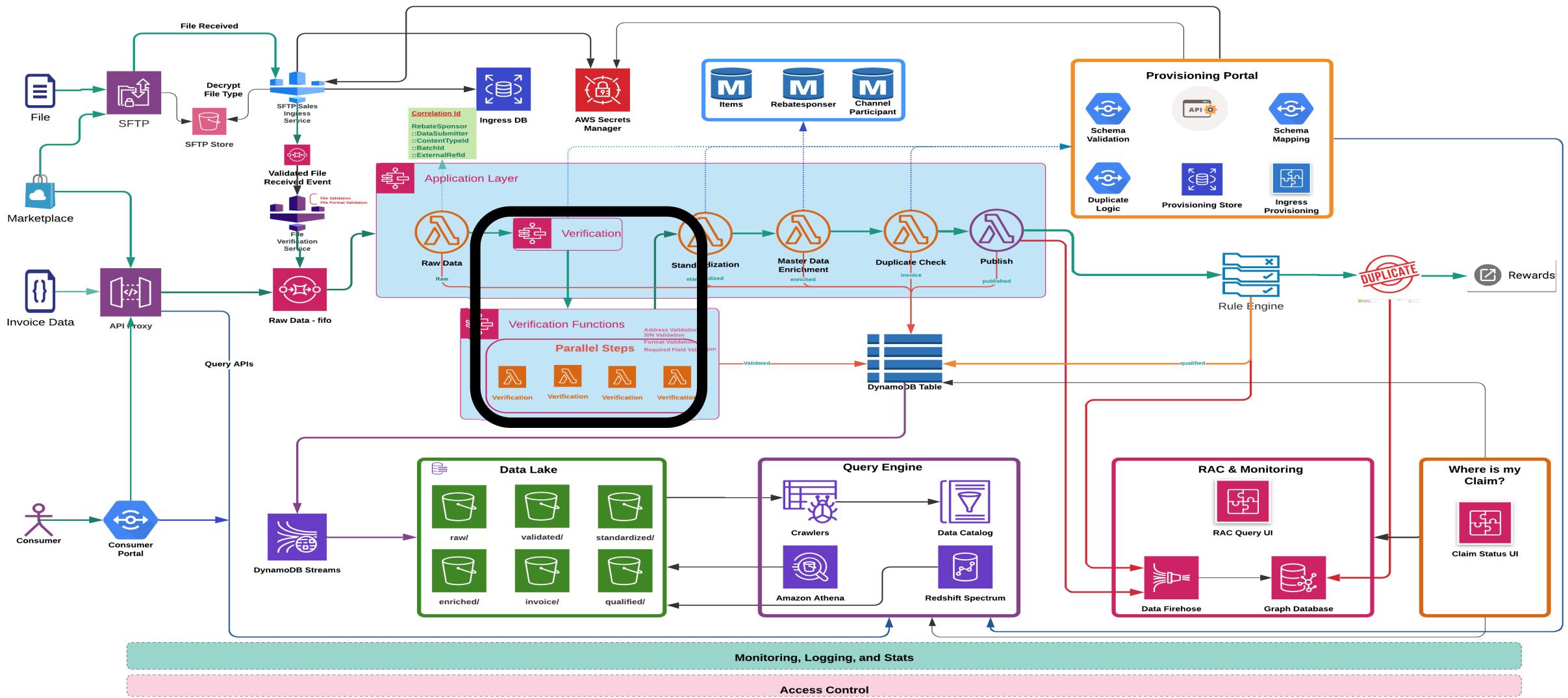
Aligned Solution Architecture



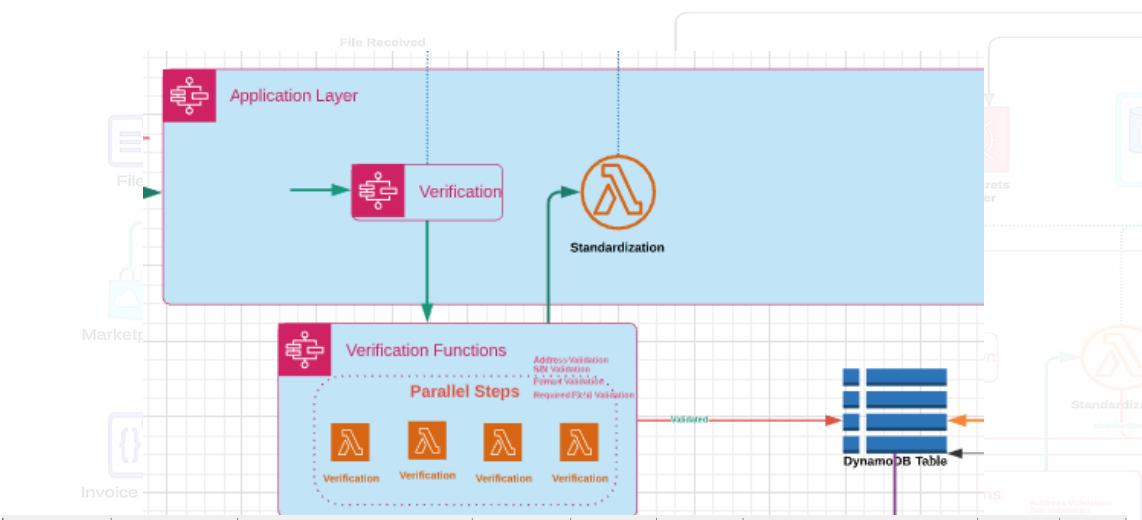
Application Layer: Raw Data Store



Aligned Solution Architecture



Application Layer: Verification Steps



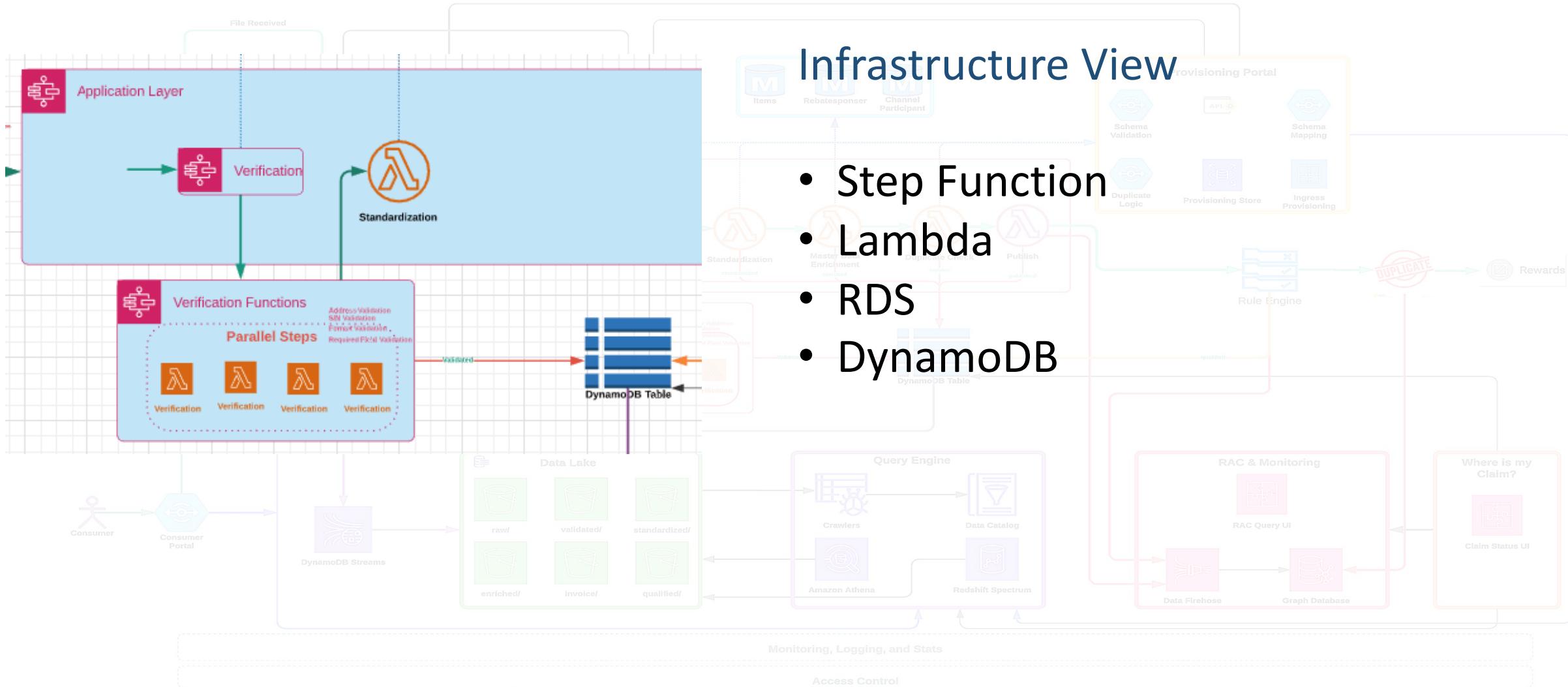
FieldValidationId	ValidationName	Expression	ExpressionType	MinLength	MaxLength	Description	ErrorCode	Name
1	RequiredValue	[NULL]	NA	1	[NULL]	Value is Required	Field-E-024	NA
2	DateFormat1	^(200[0-9]{2})[0-9]{2}(0[1-9] 1[0-2])(0[1-9] 1[0-2])	RegEx	[NULL]	[NULL]	Date Format yyyy-MM-dd or M/d/yyyy	Field-E-023	RegEx
3	ZipCodeFormat	^((d{5})([0-9]{3}))\$	RegEx	[NULL]	[NULL]	ZipCode Format ##### or #####	Field-E-023	RegEx
4	NameFormatLastCommaFirst	^((?s*)+,(?s*)+)	RegEx	[NULL]	[NULL]	Name Format last name, first name	Field-E-023	RegEx
5	LeadingComma	^((?s*)[,])\$	RegEx	[NULL]	[NULL]	Text must not start with a comma	Field-E-023	RegEx
6	Max50Characters	[NULL]	NA	50	50		Field-E-025	NA
7	Max100Characters	[NULL]	NA	100	100		Field-E-025	NA
8	Max150Characters	[NULL]	NA	150	150		Field-E-025	NA
9	Max255Characters	[NULL]	NA	255	255		Field-E-025	NA
10	USStateCodes	\b[A-Z]\b[A-Z]\b[A-Z]\b[A-Z]\b[A-Z]\b[A-Z]\b\b	RegEx	0	2	2 character ISO standard US state codes	Field-E-023	RegEx
11	PhoneNumber10digits	^((?s*){10})\$	RegEx	[NULL]	[NULL]	10 digit phone number with no special characters present	Field-E-023	RegEx
12	NotFutureDateFormat	&fieldName.indexOf("/")>0?(new java.util.Date()):new Java	Java	[NULL]	[NULL]	Date must be correctly formatted as yyyy-MM-dd or M/d/	Field-E-023	Java

Functional View

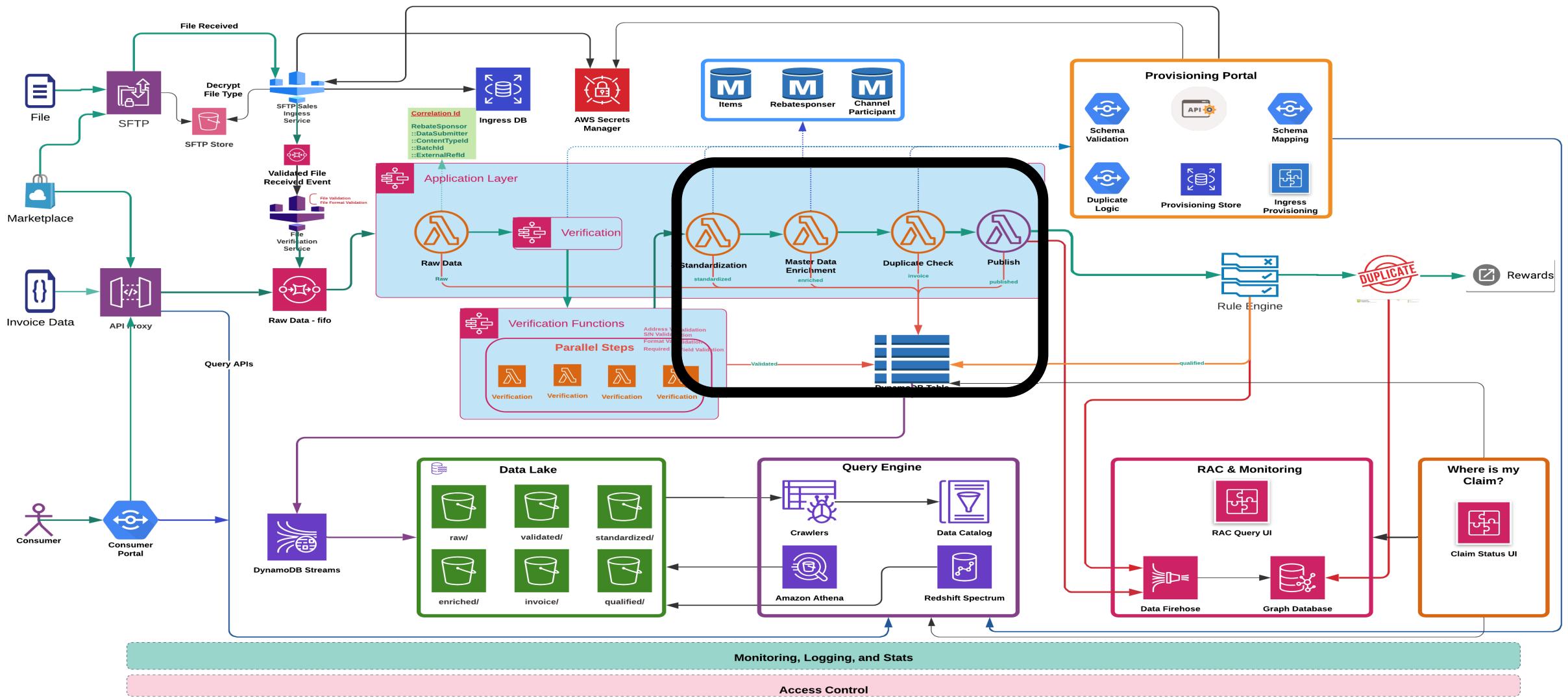
- Ability to do parallel or sequence verification steps
- Ability to read predefine configs from RDS.
- Write outcome status to DynamoDB

UUID	Status	Compressed Payload
c4bda14e-8f3c-4ade-b596-1f208172a64c	landed	
c4bda14e-8f3c-4ade-b596-1f208172a64c	verified	

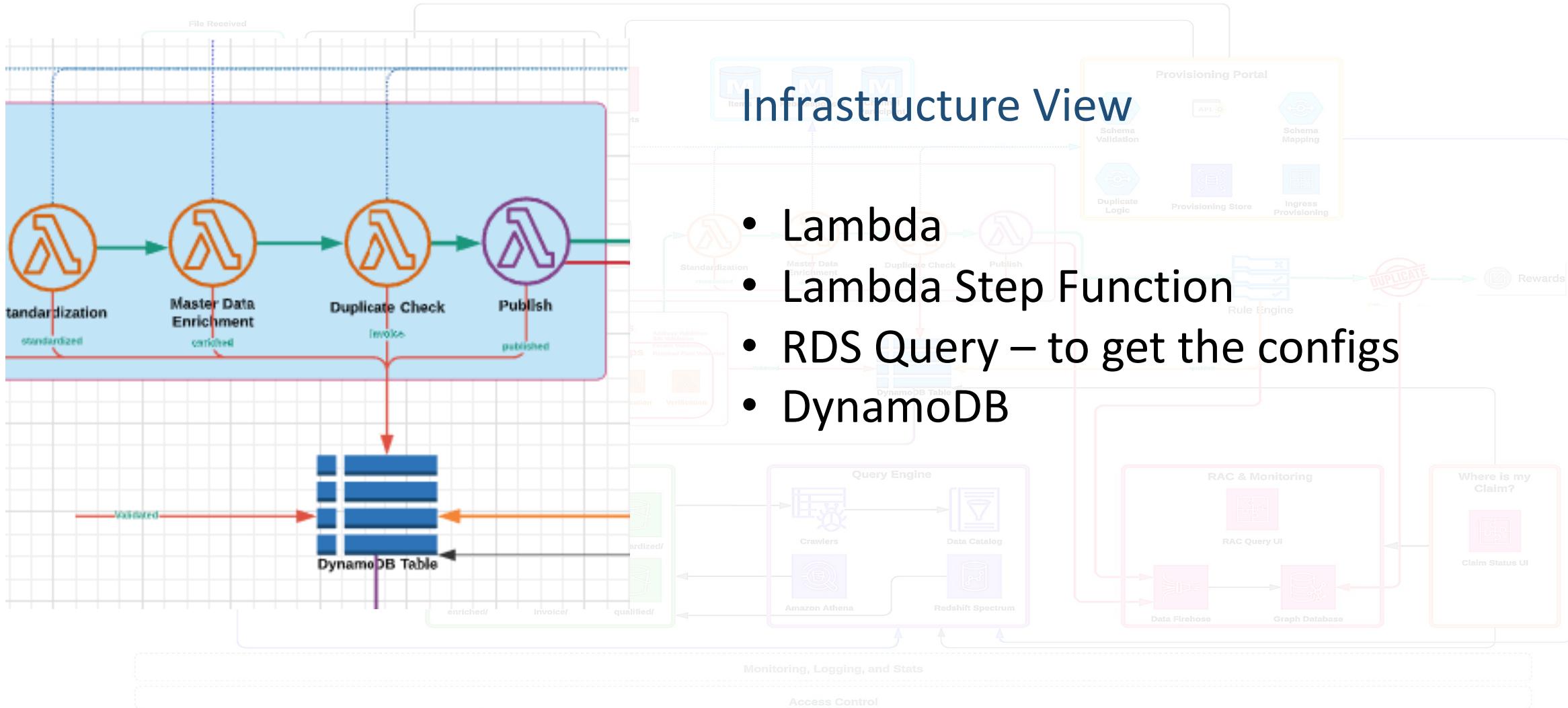
Application Layer: Verification Steps



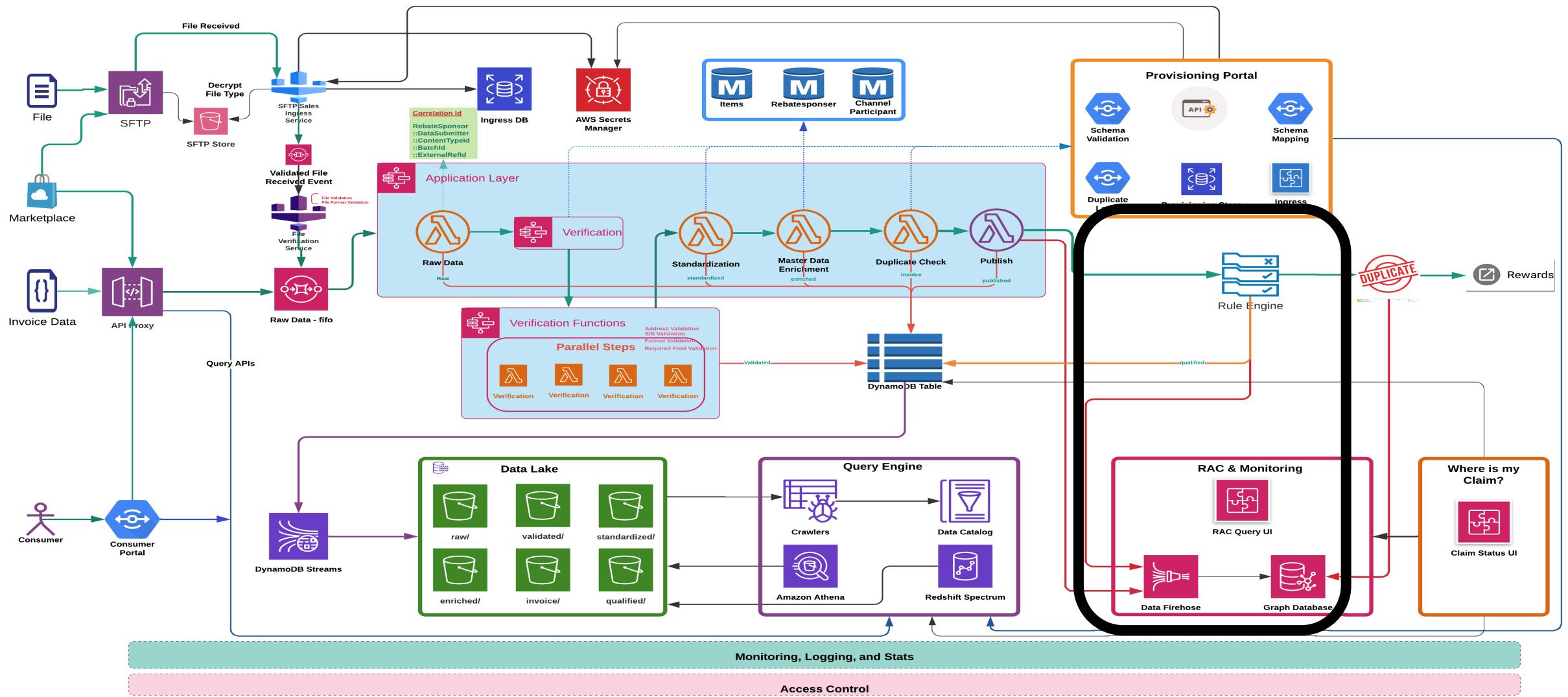
Aligned Solution Architecture



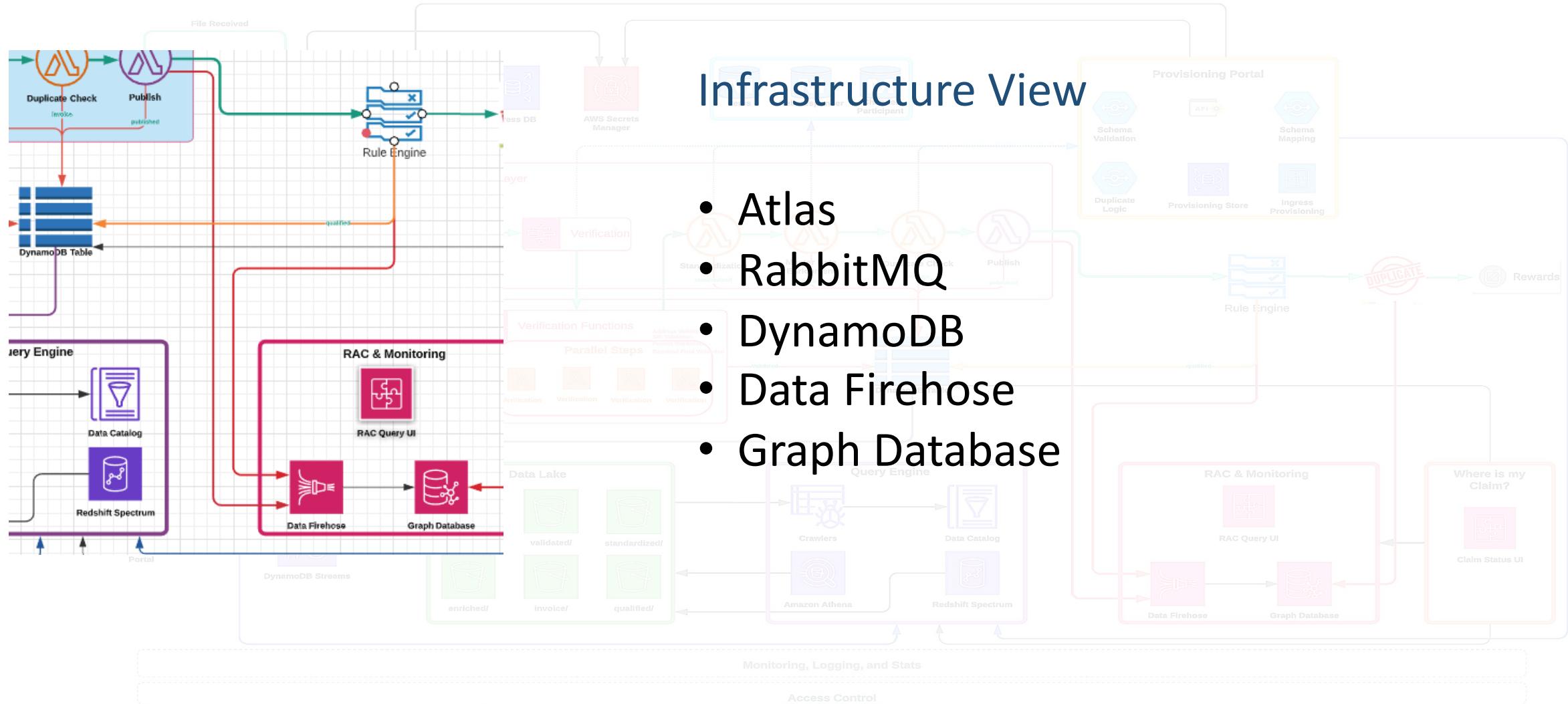
Application Layer: Validation Steps



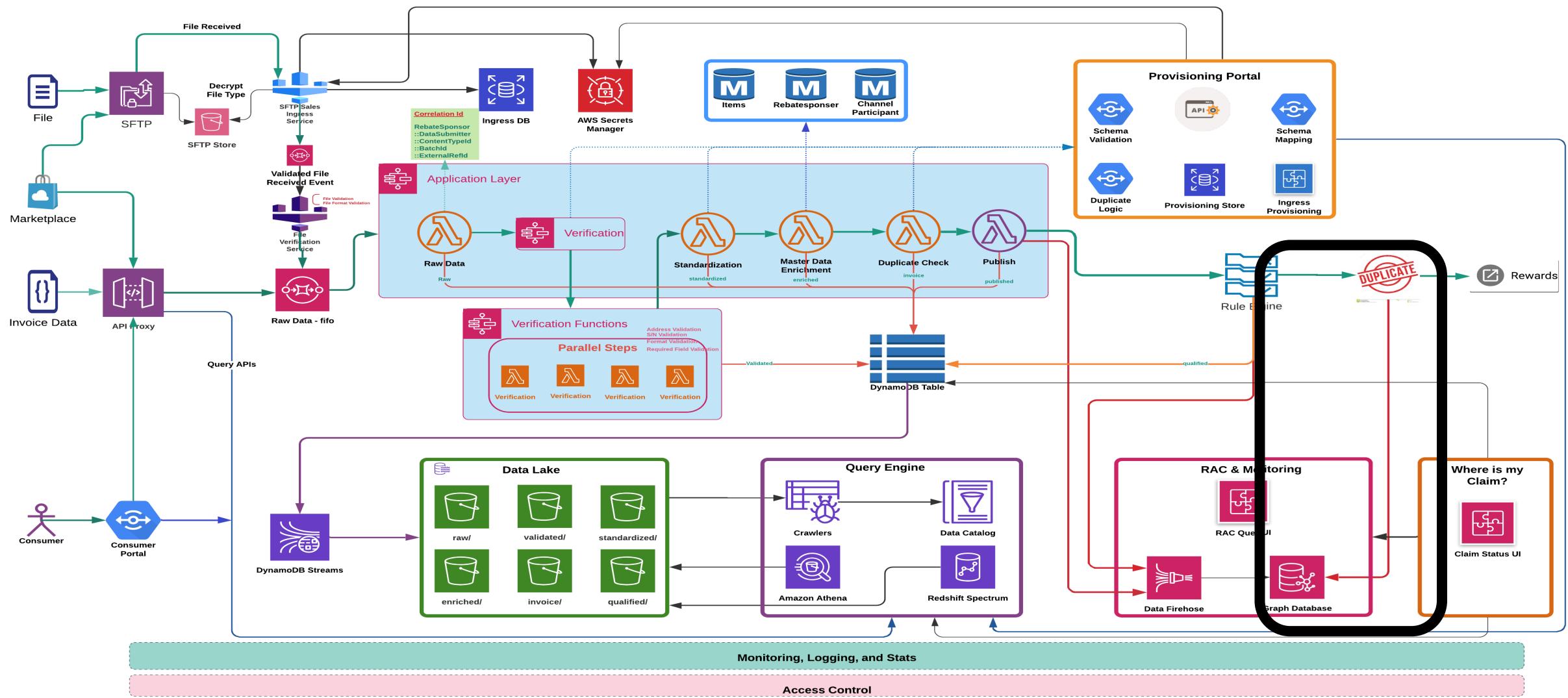
Aligned Solution Architecture



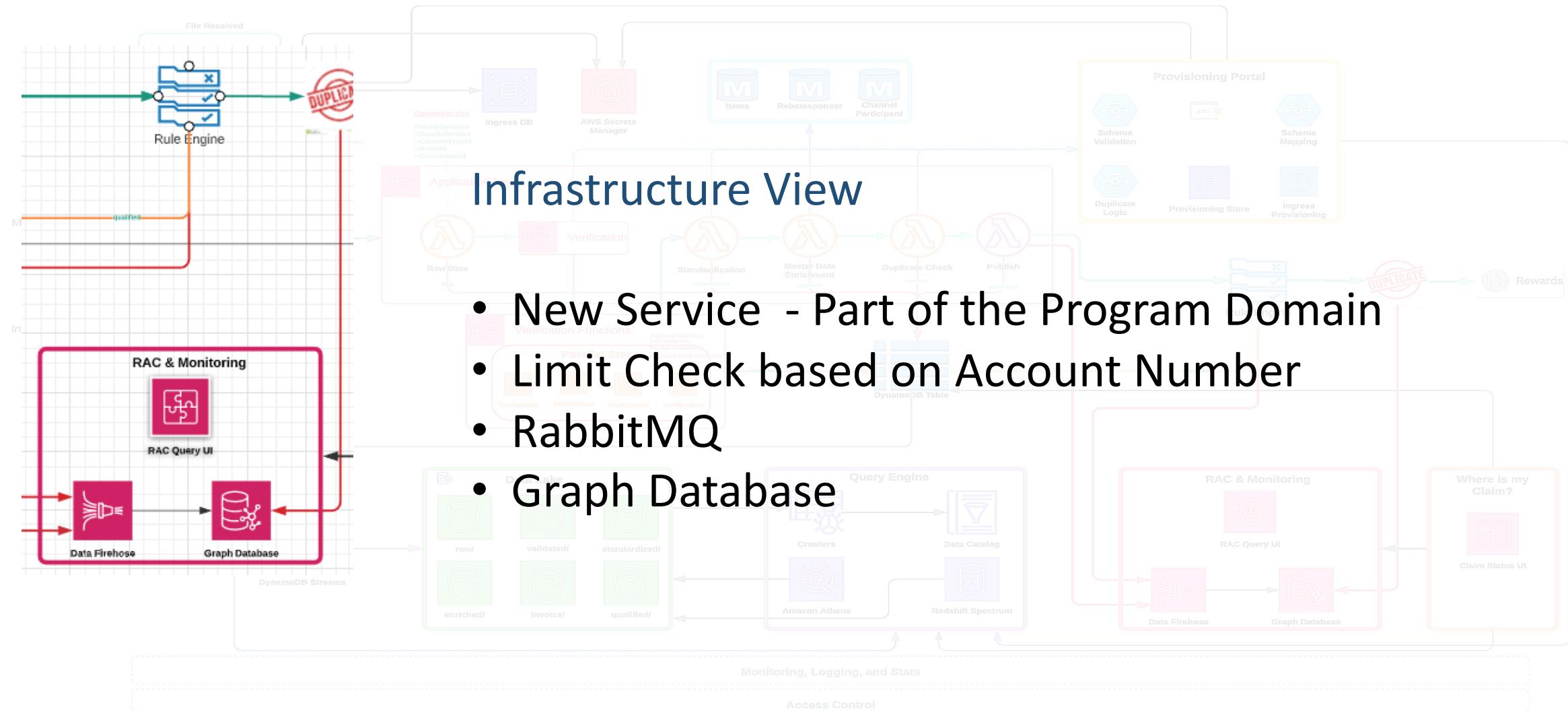
Rule Engine



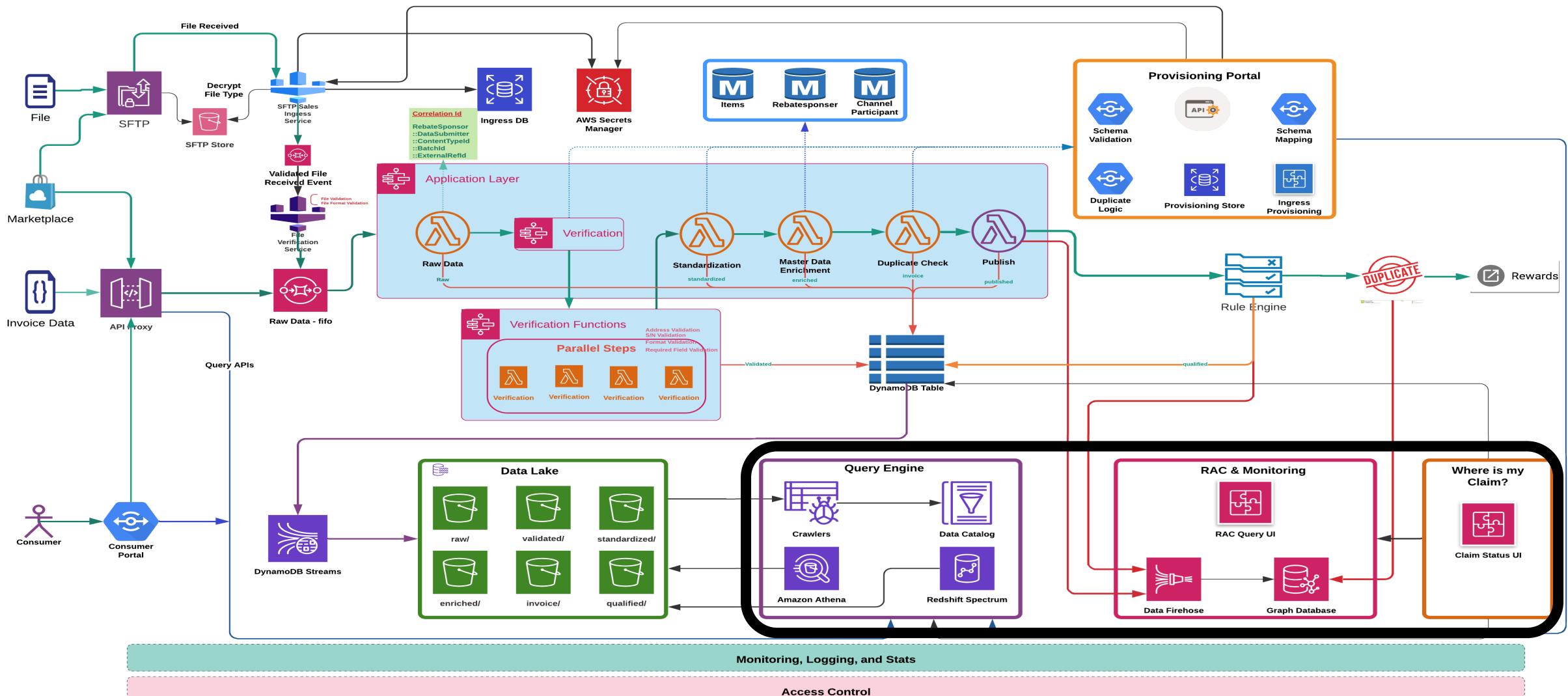
Aligned Solution Architecture



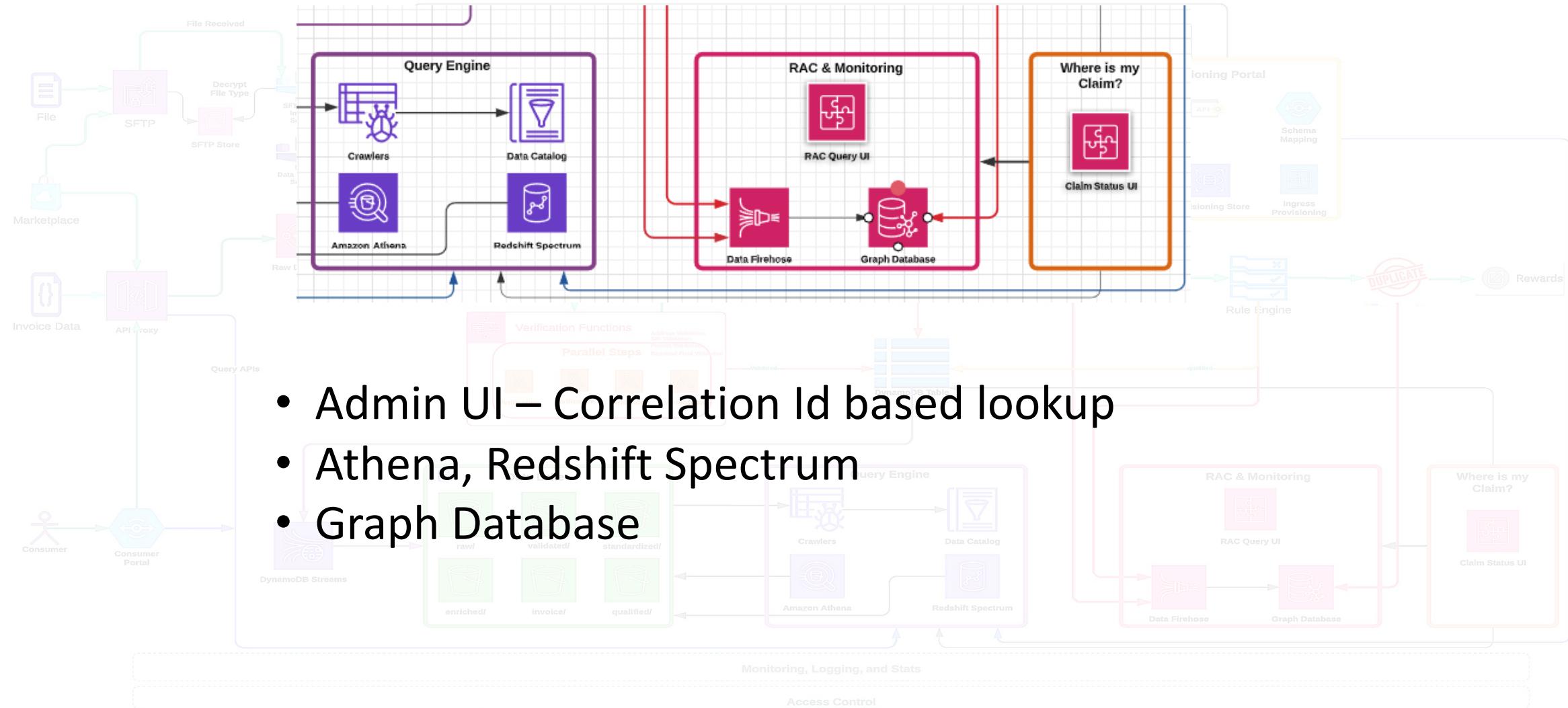
Duplicate or Limit Check



Aligned Solution Architecture

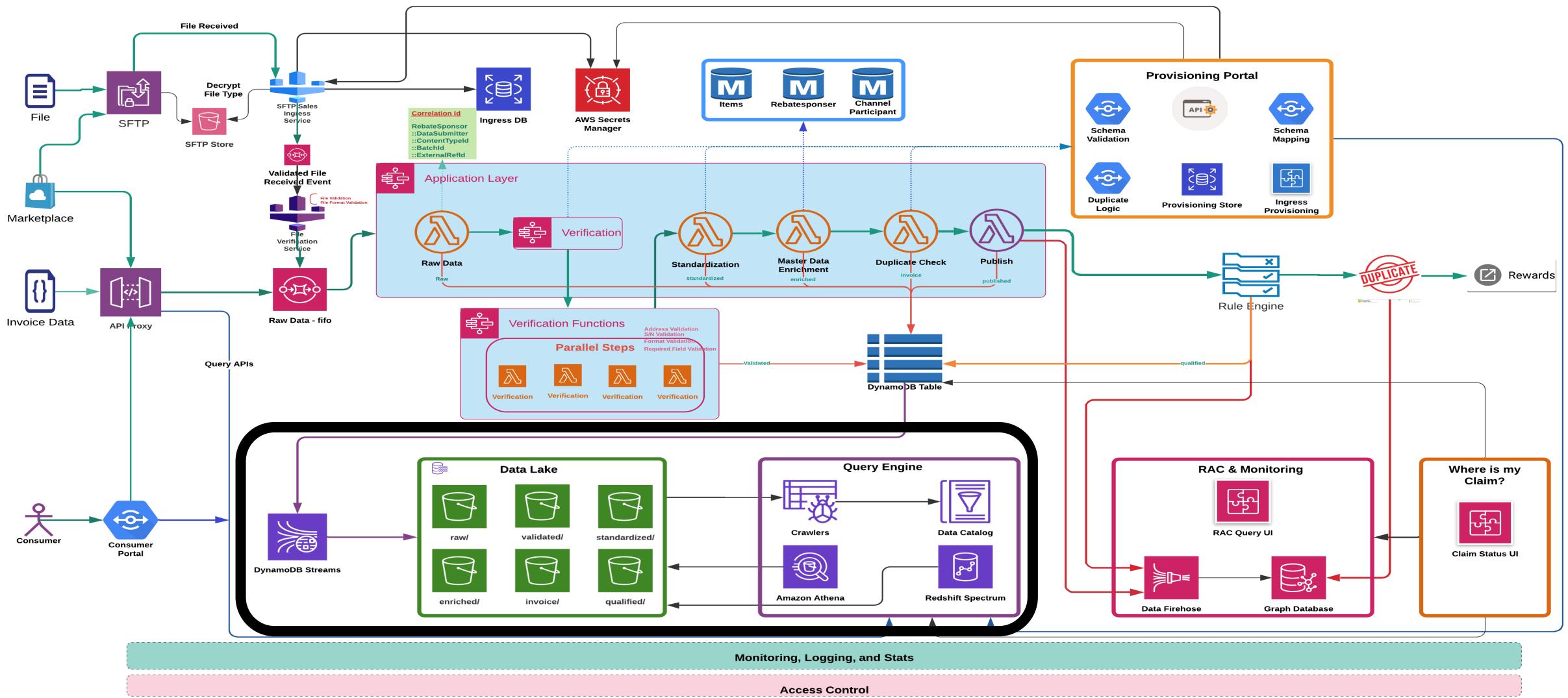


Where is my Claim?

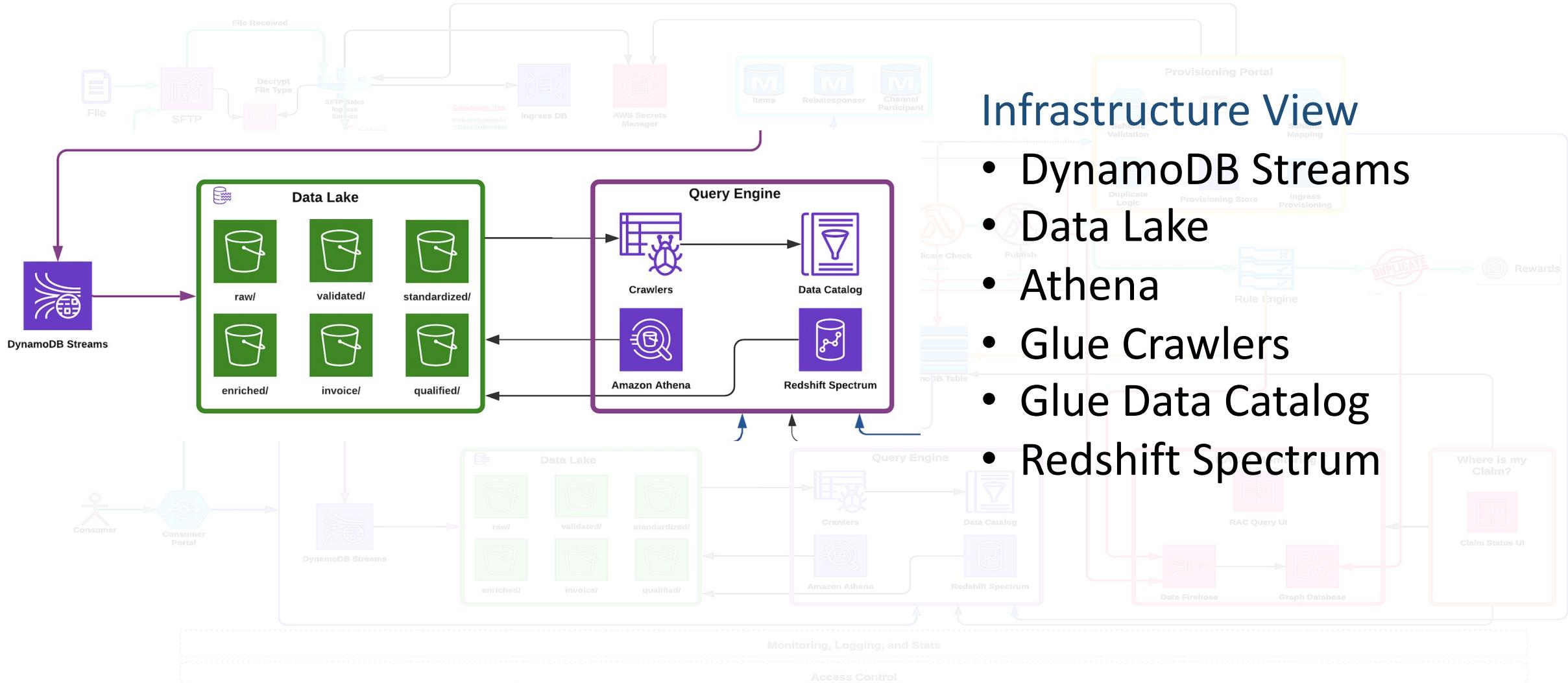


- Admin UI – Correlation Id based lookup
- Athena, Redshift Spectrum
- Graph Database

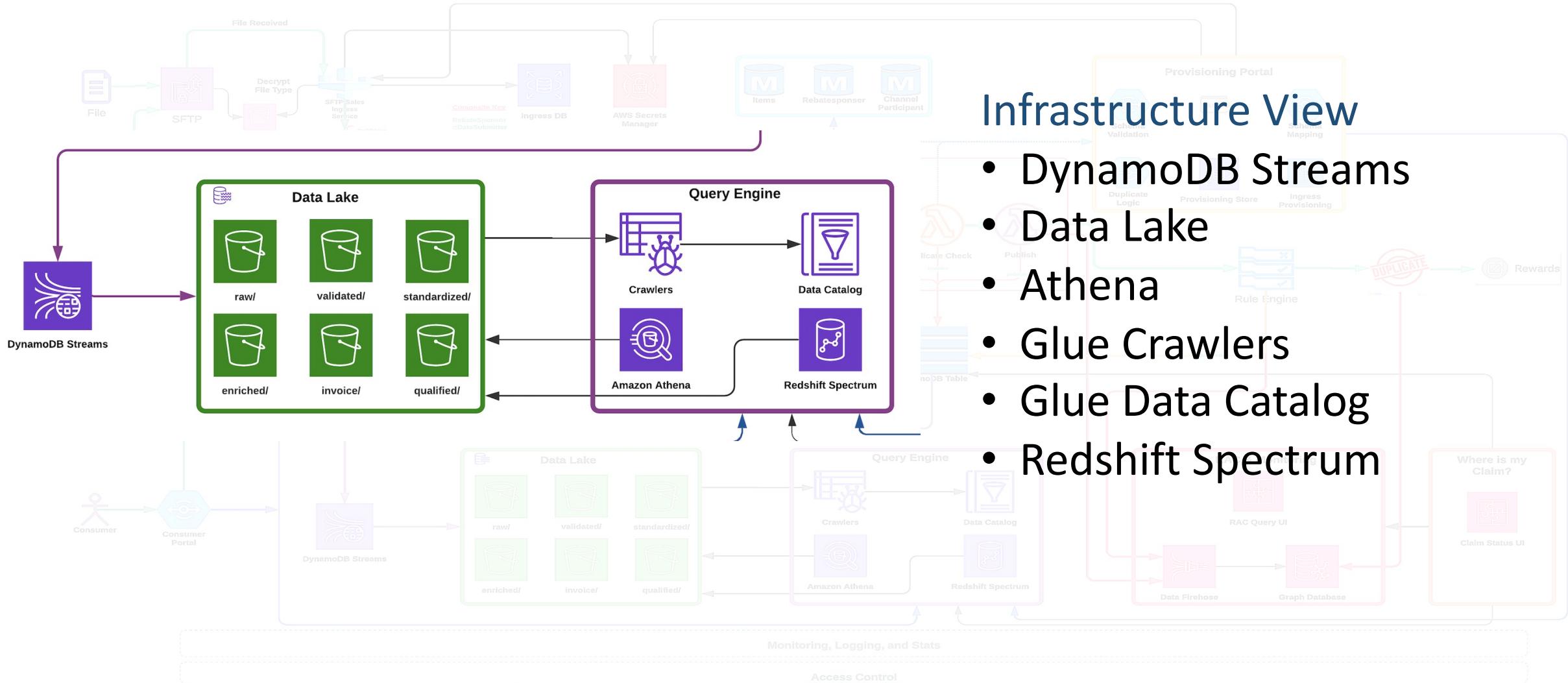
Aligned Solution Architecture



Data Lake

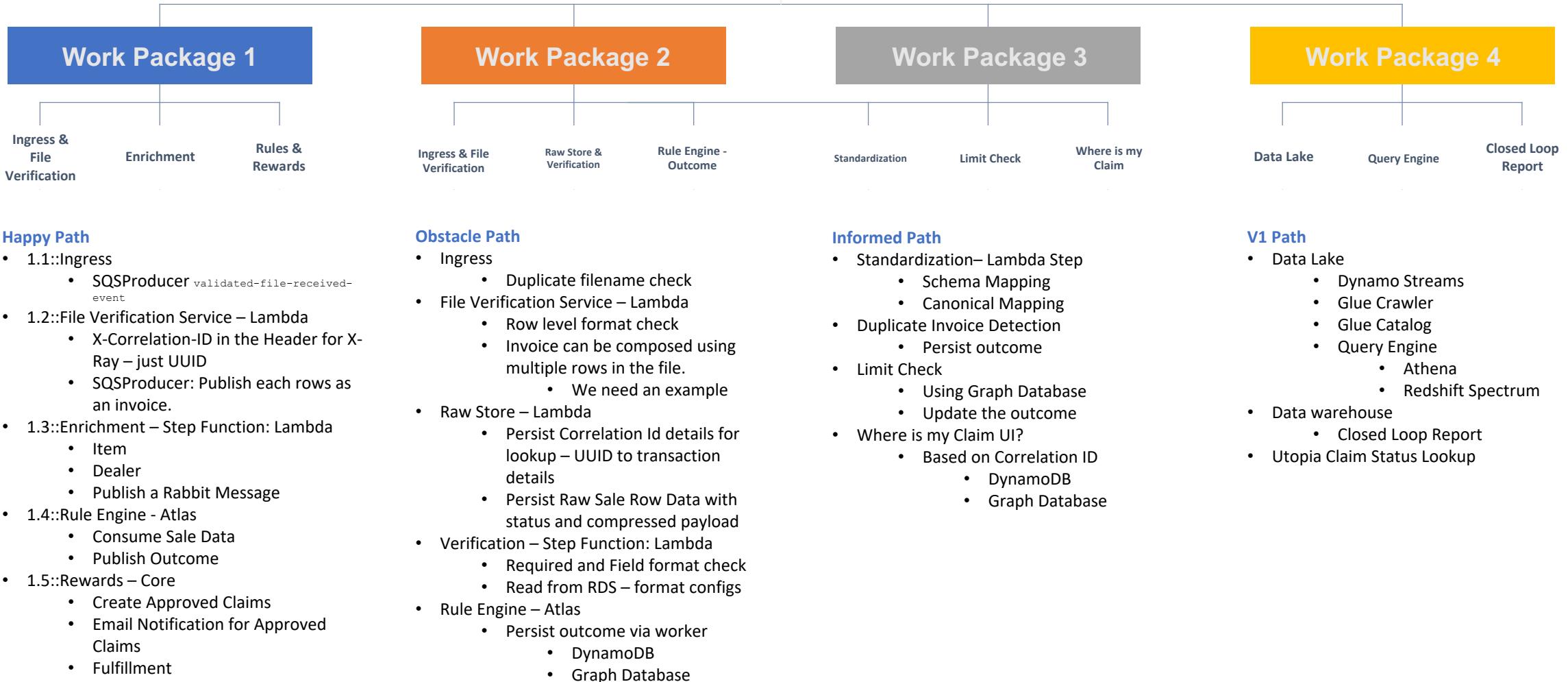


Data Lake

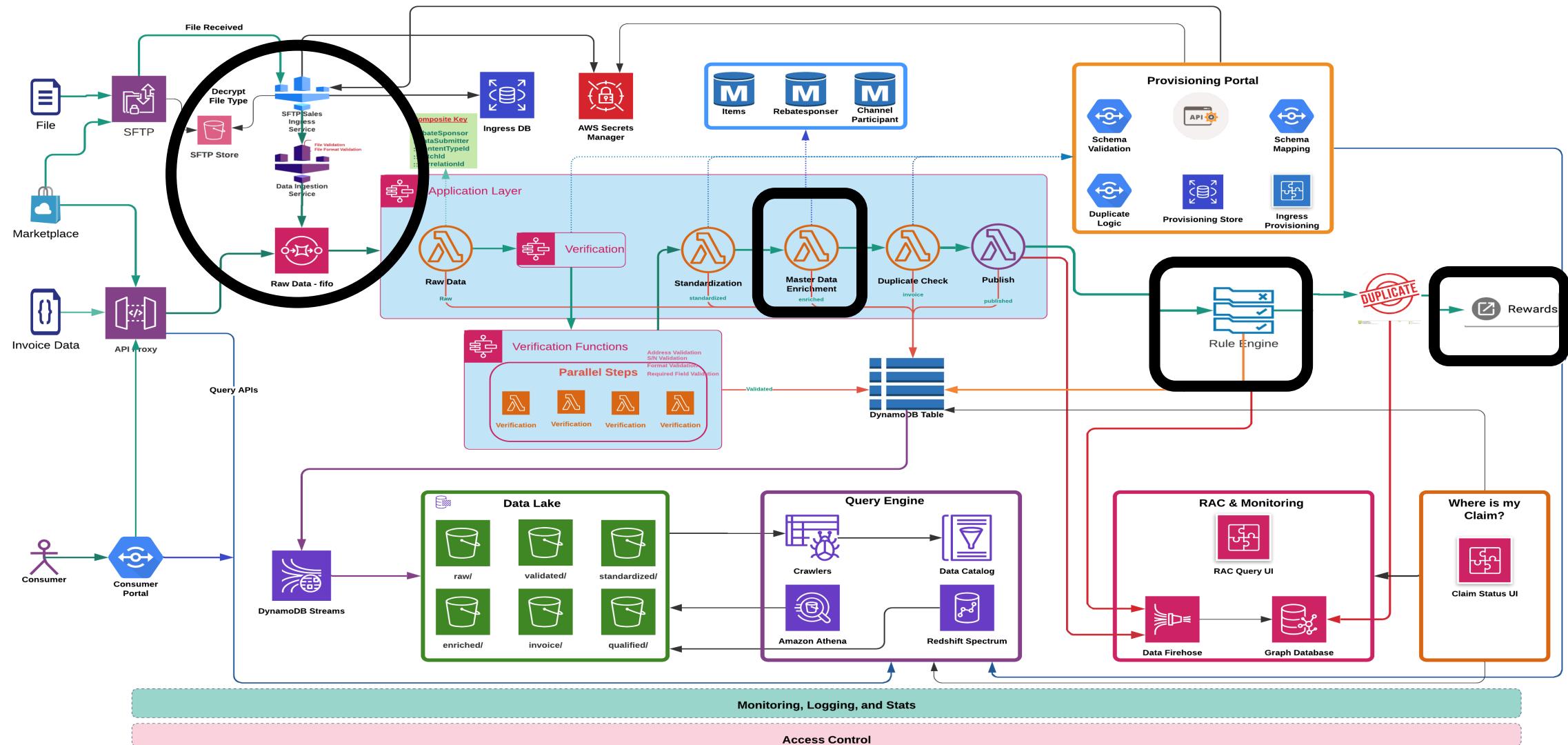


Straight Through Processing

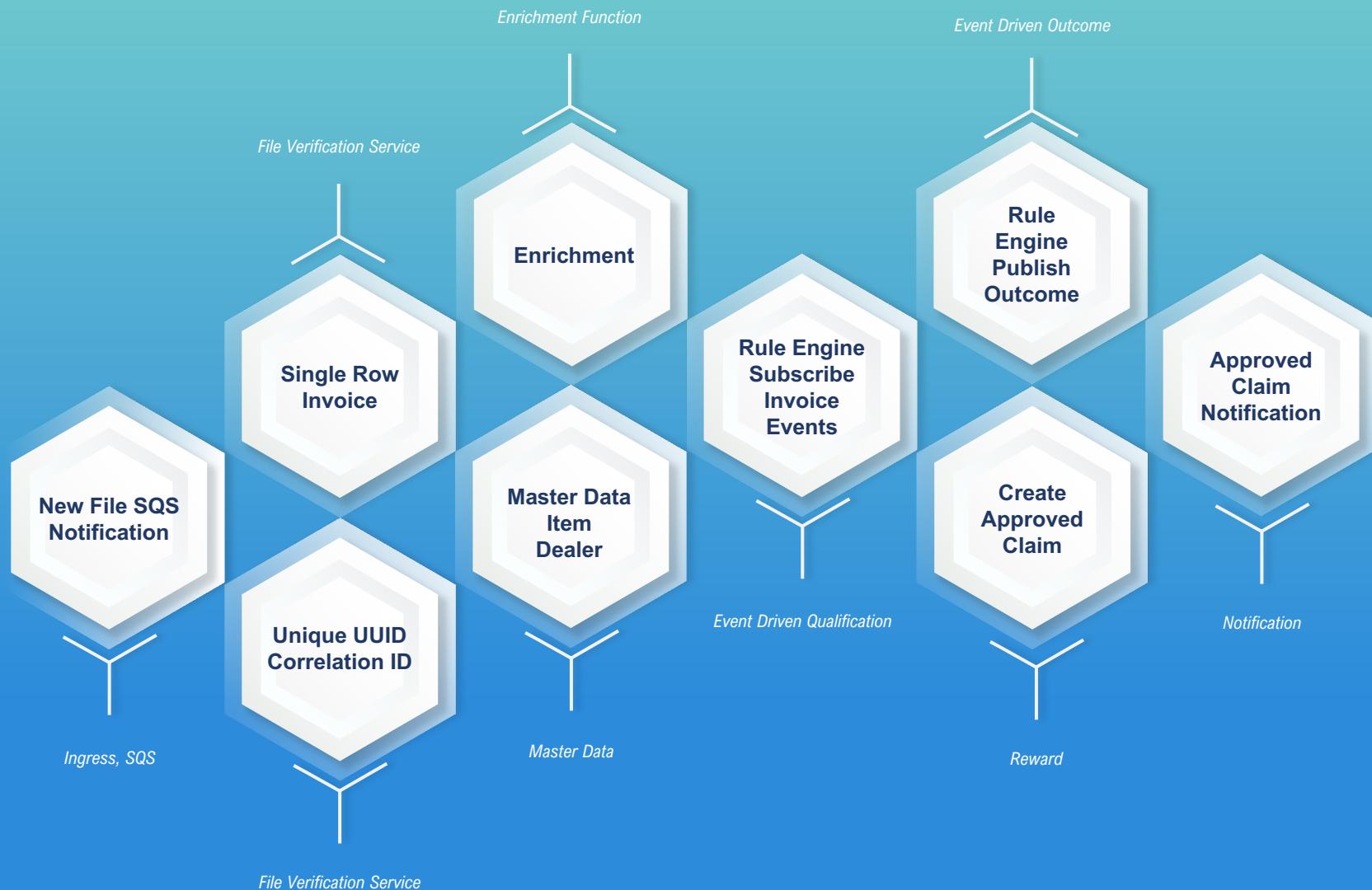
Version 1.0



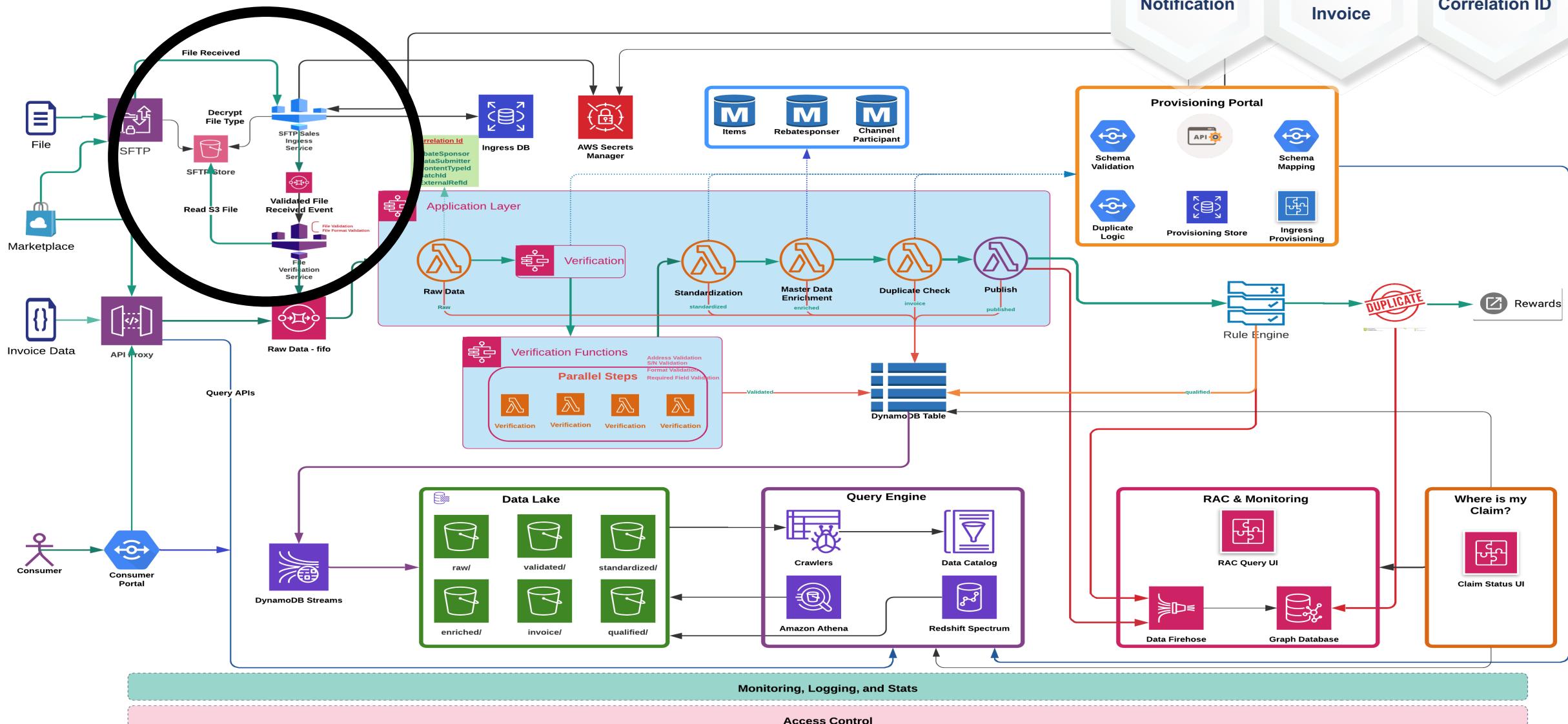
Aligned Solution Architecture:: Work Package 1::Tracer Code



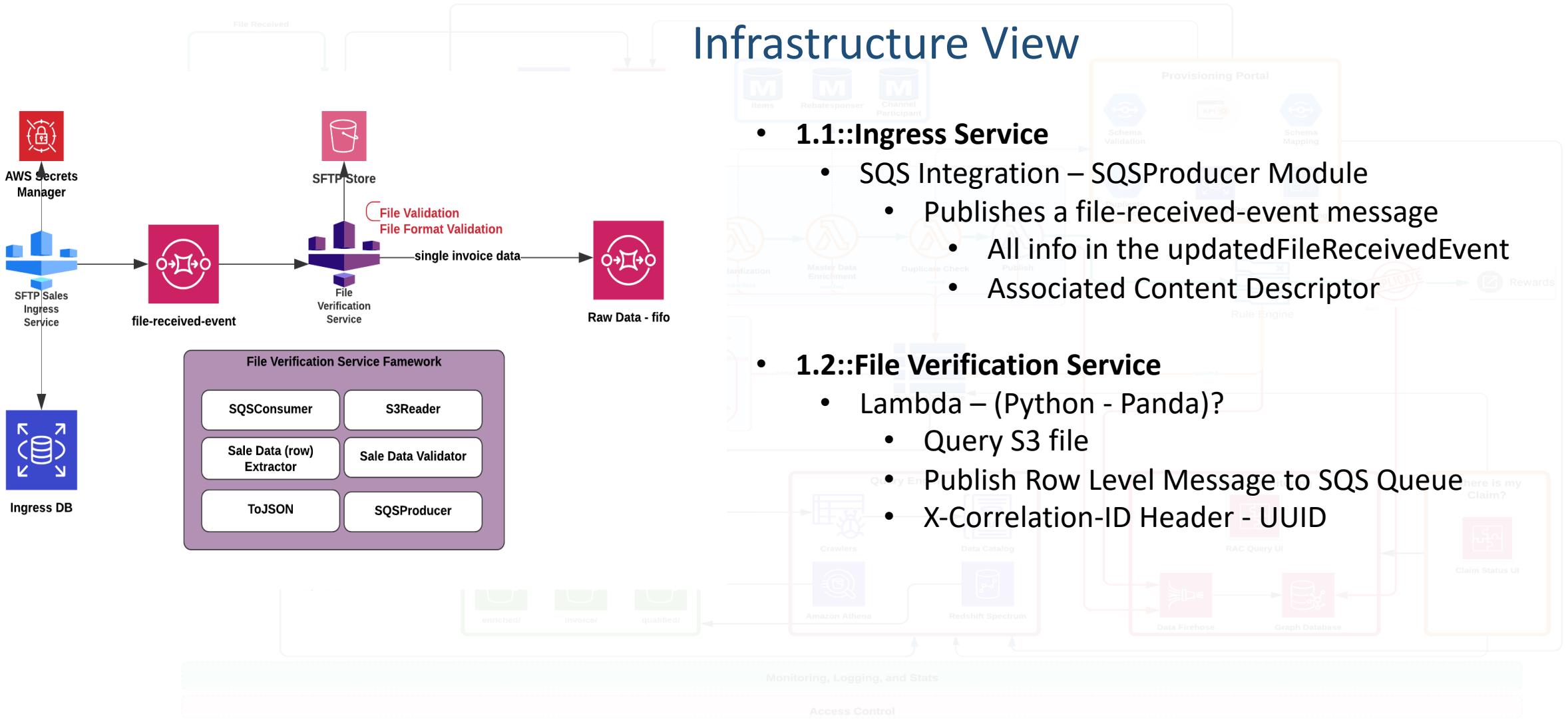
Create approved Consumer Rebate claims from SFTP file-based sale ingress event



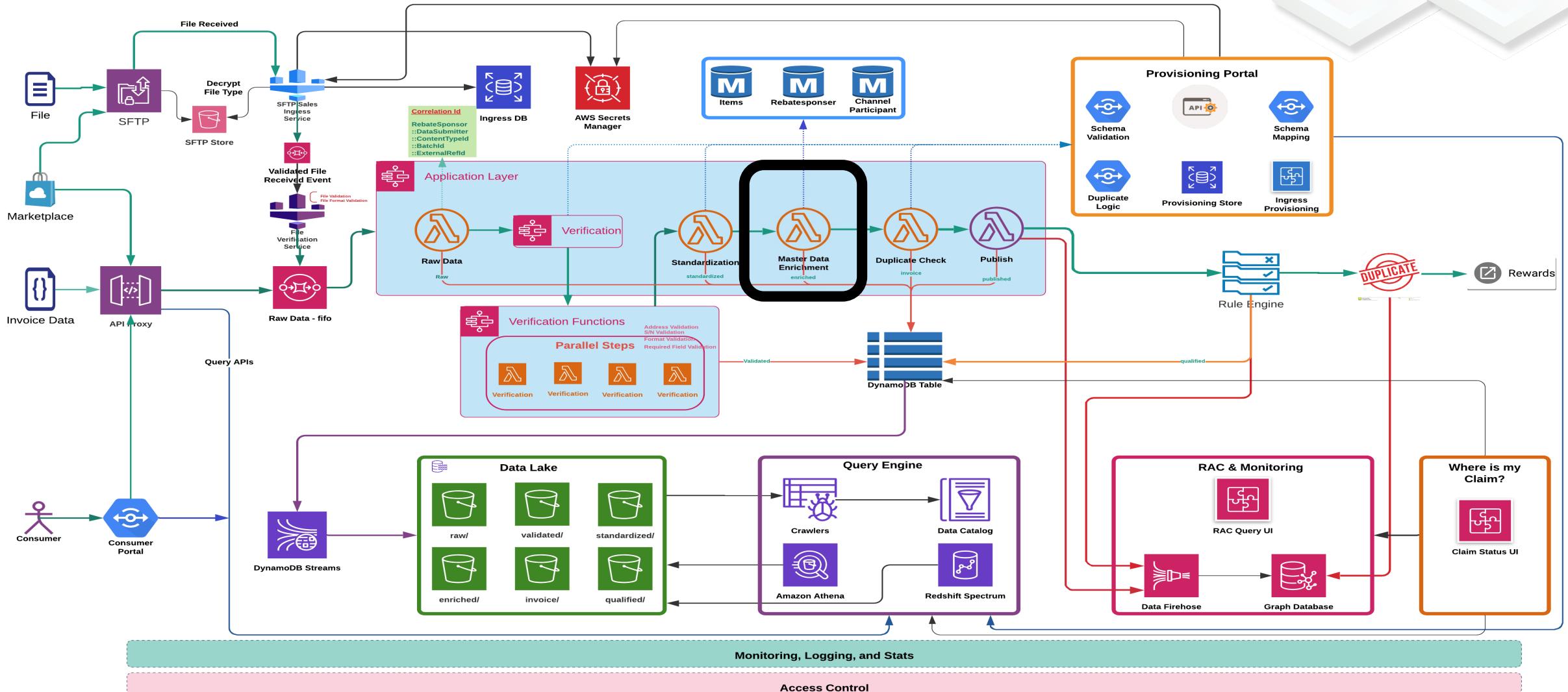
Aligned Solution Architecture::Work Package 1.1 & 1.2



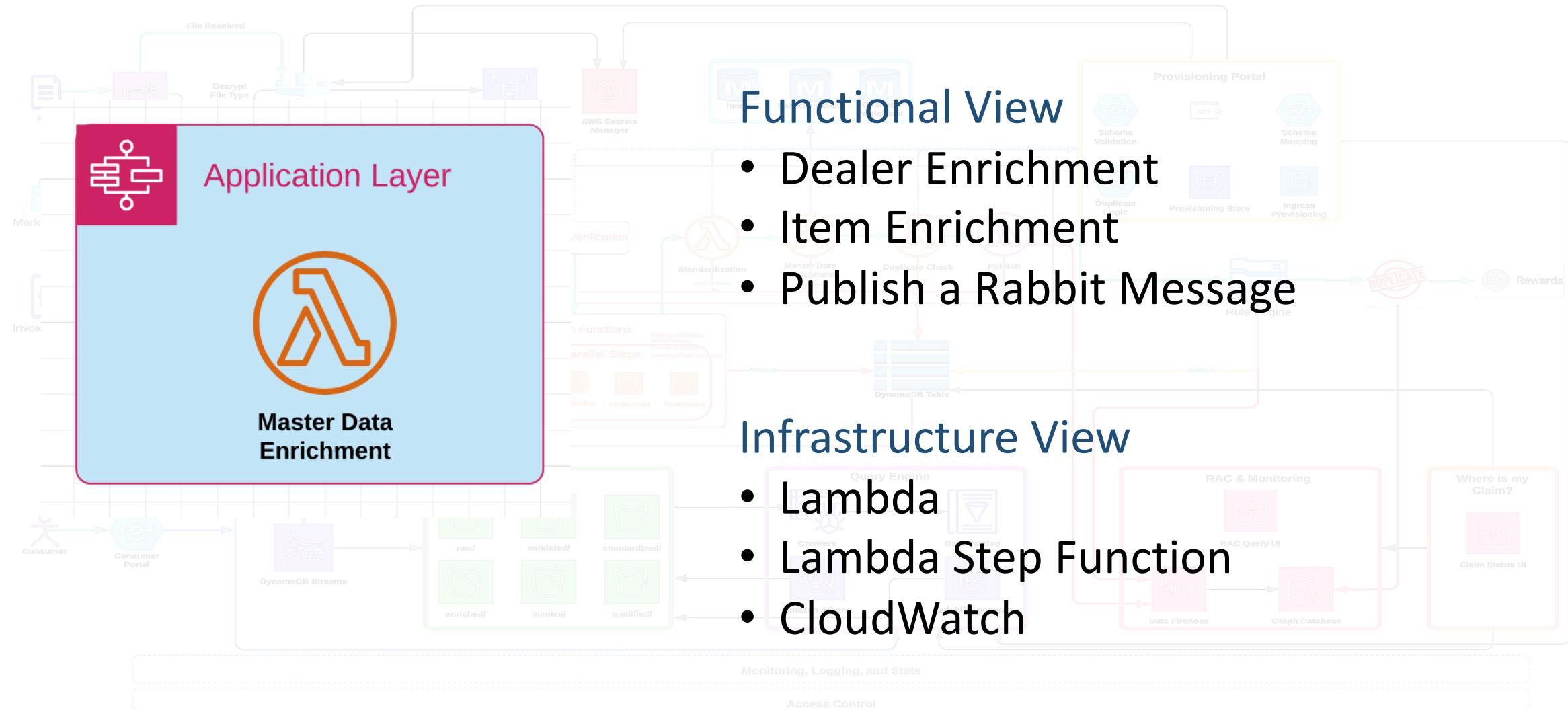
STP::Sales Data Ingress::Work Package 1.1 & 1.2



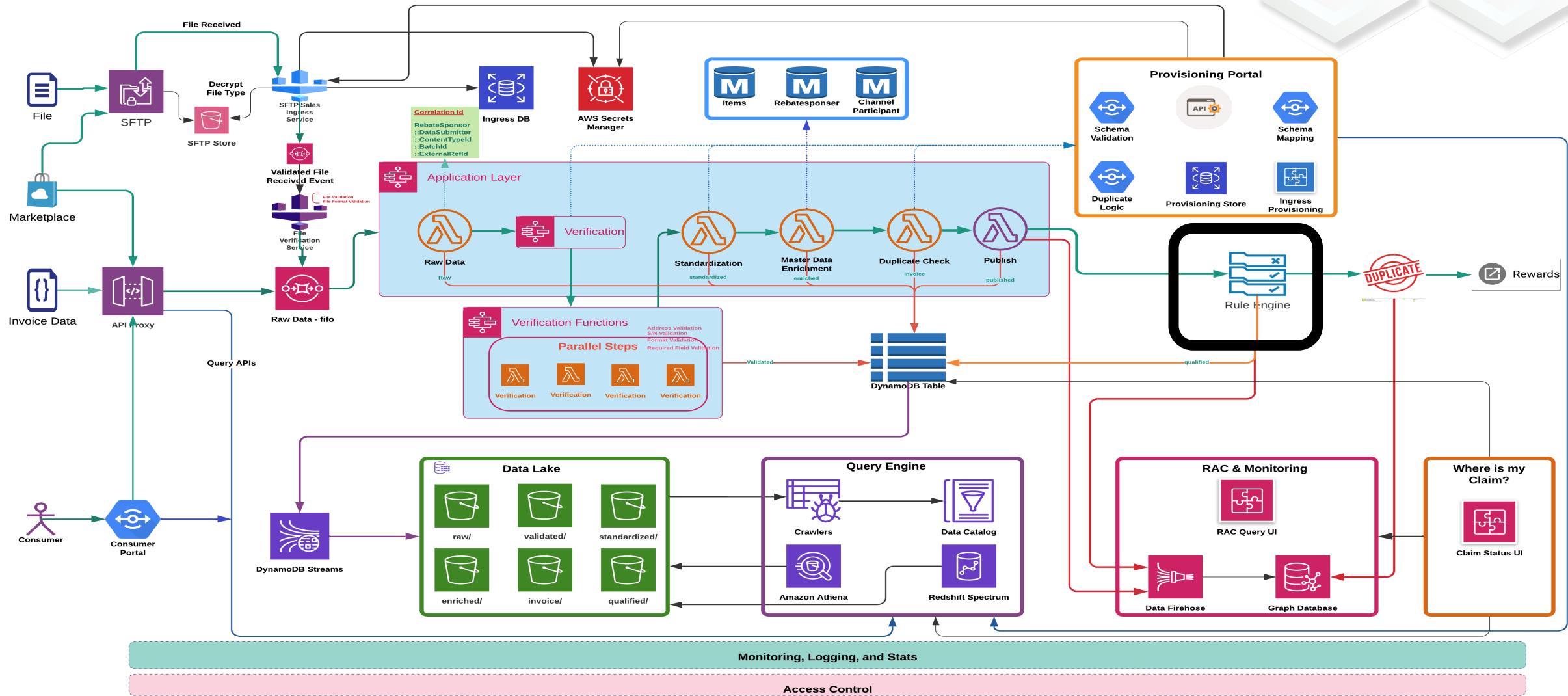
Aligned Solution Architecture::Work Package 1.3



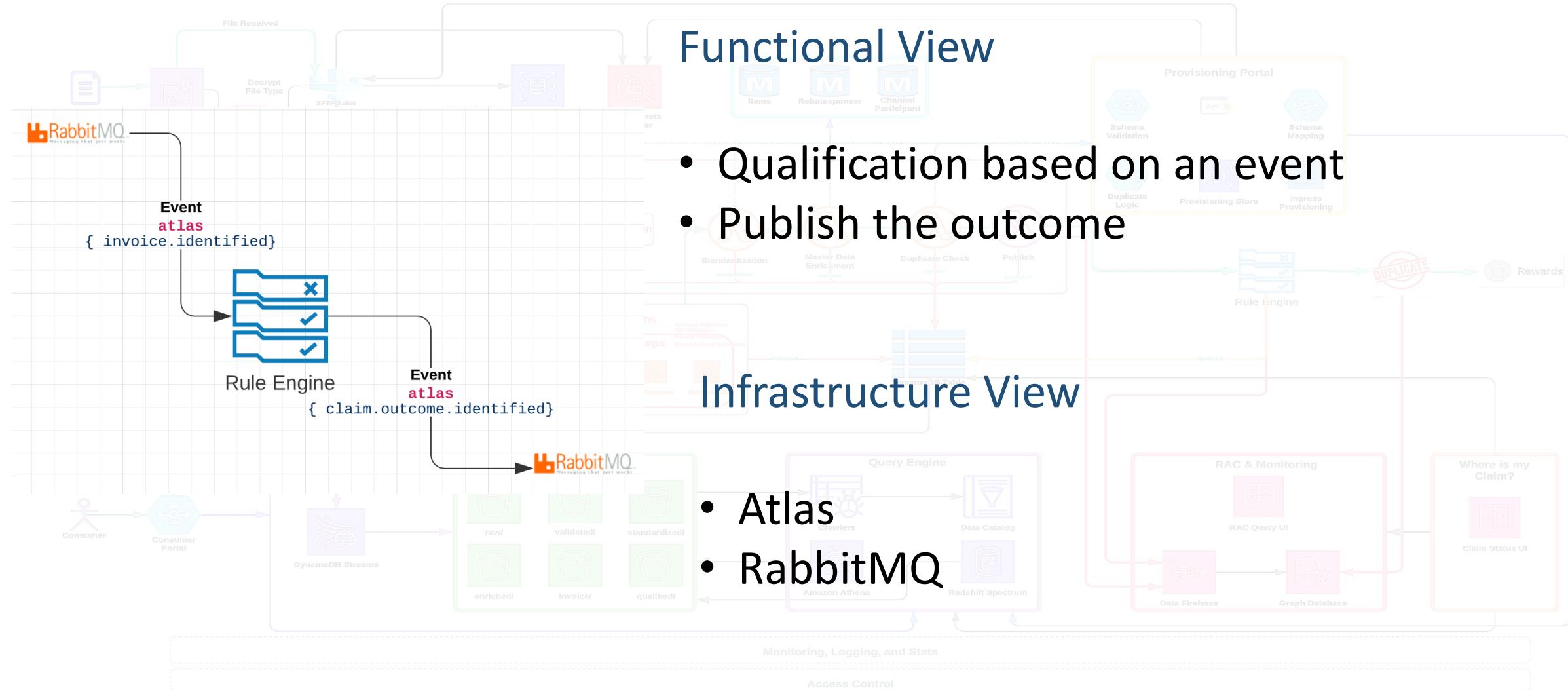
STP::Application Layer::Master Data Enrichment::Work Package 1.3



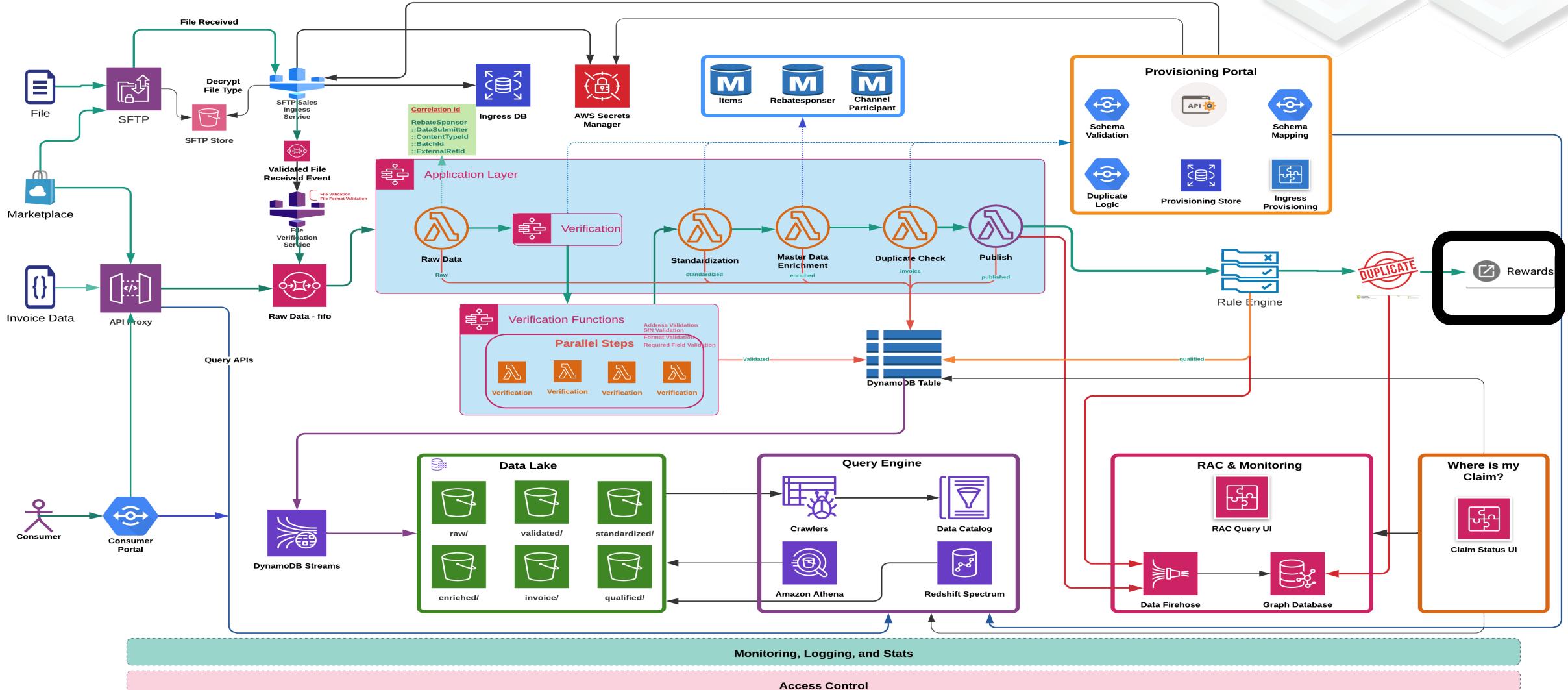
Aligned Solution Architecture::Work Package 1.4



STP::Rule Engine::Work Package 1.4



Aligned Solution Architecture



STP::Rewards::Work Package 1.5

