CAMUNDA CON LIVE

Finance Back-office Billing Engine Using Camunda

Daivish Shah, Atlassian

Finance Back-Office Billing Engine Using Camunda

DAIVISH SHAH

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Finance Back-Office Billing Engine

Business Value Of Using Camunda

Why ?, What ?, How ?

Why New Billing Engine?

What are we solving ?

How to Operationalize ?

Products to support

Legacy billing engine

Reverse engineering from code

Why to use BPMN?

Workflow pattern using Camunda

High level Architecture

BPMN Use Case

Why to use DMN?

DMN Use case

Camunda Operational Benefits

Business Value of using Camunda

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Why New Billing Engine

- Atlassian strategic move
- Monolithic code base
- Agility
- UAT testing cycles
- Continuous Delivery

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What are we solving ?

- Subscription based billing
- ERP Transactions Automation
- On-board existing products billing
- Vendor billing
- Market place purchases

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How to Operationalize ?

- Contract first
- Repeatable design
- Microservices
- Workflow based solution
- Decision modeling framework
- Build vs Buy

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Products To Support For Billing Engine

Track and Support

- **Jira Software** — Issue tracking and code integration
- **Jira Service Management** — IT support and self-service
- **Jira Work Management** — Project management for business teams
- **Capture for Jira** — Exploratory testing
- **Statuspage** — Communicate downtime

Apps

- **ATLASSIAN Marketplace** — Apps for our products

Training

- **ATLASSIAN University** — Training and Certification

Collaborate

- **Confluence** — Create & collaborate
- **Questions for Confluence** — Share knowledge

Enterprise

- **Crowd** — Identity management
- **Premier Support** — Account-level coverage
- **Priority Support** — Flexible coverage
- **Technical Account Management** — Trusted advisors

Code

- **Bitbucket** — Git-based code collaboration and management

Code Quality

- **Bamboo** — Continuous integration
- **Fisheye** — Browse & search code
- **Crucible** — Peer code review

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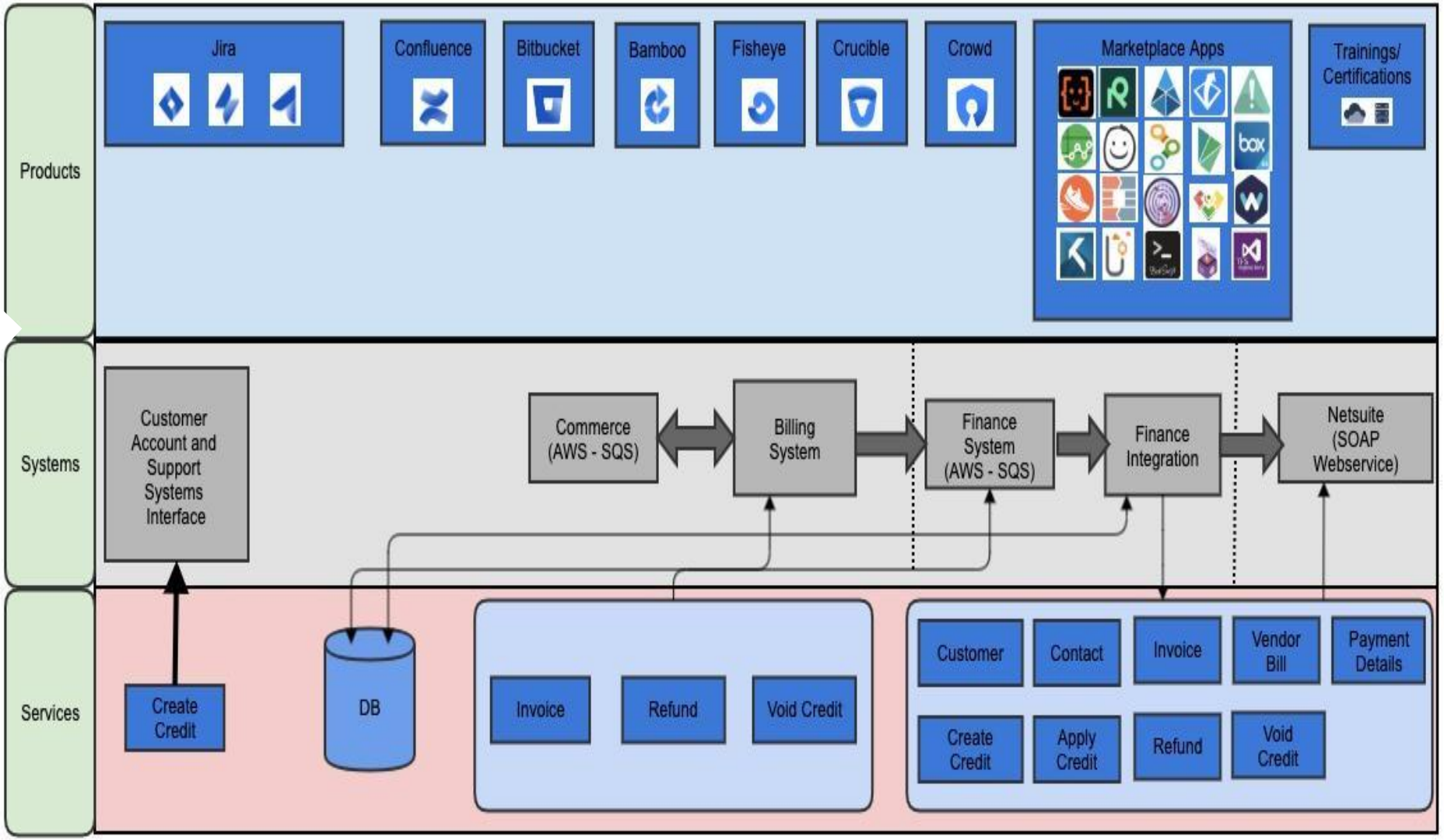
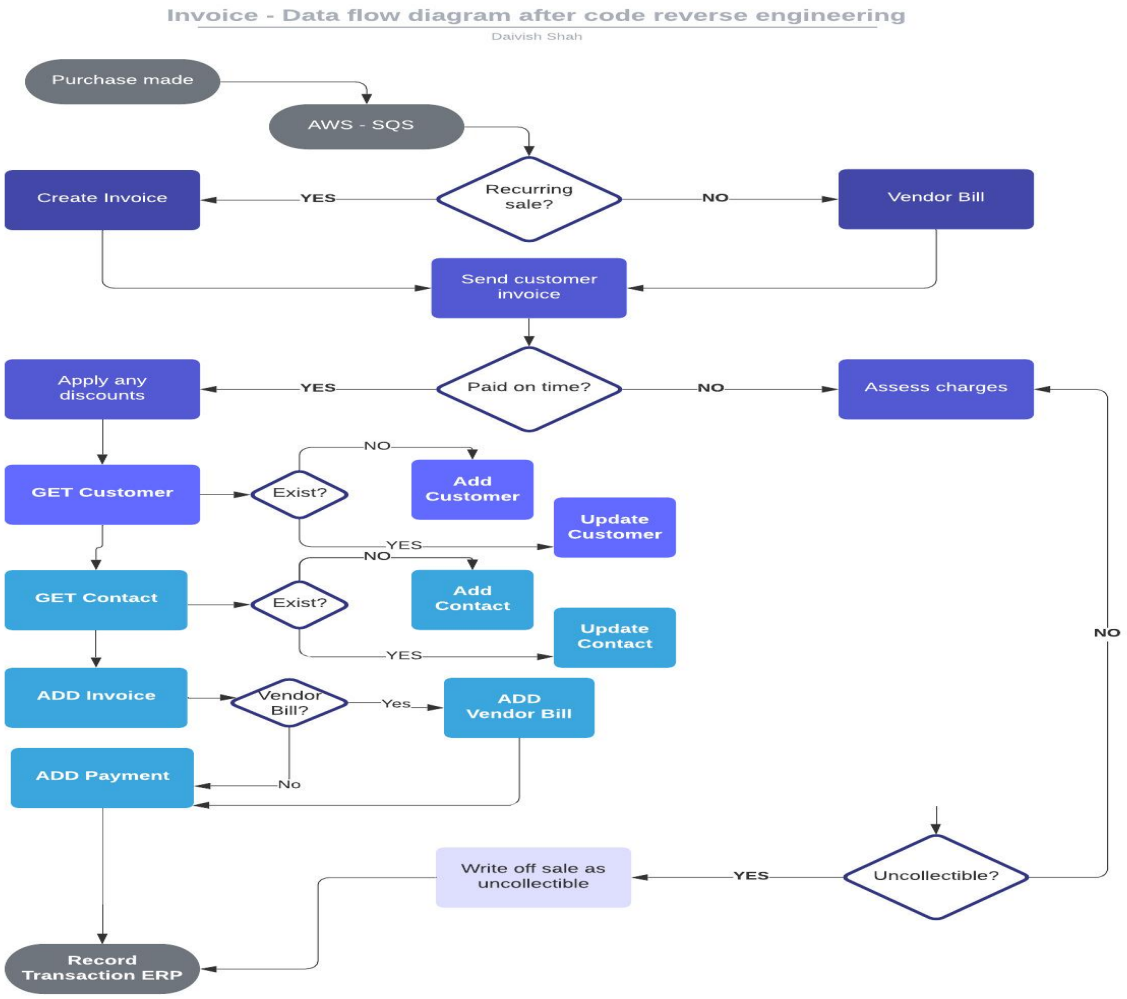
Legacy Billing Engine



Reverse Engineering from Code



- Business flow drafted by reverse engineering of the code
- Workflow based implementation
- Sequencing problem needs to be solved
- Multiple failure points as part of integration
- Complex workflow and need agility as part of implementation
- BSA managed business rules.

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Why to use BPMN?

- ✔ Simplicity
- ✔ Agility
- ✔ Speed

Where to use BPMN in Finance?

- ✔ Specific Sequences to follow such as Invoice, Credit Memo, Vendor Bill, Refund, Payment, Sale Actions

What are the benefits ?

- ✔ Business process automation
- ✔ Visual presentation about the business logic
- ✔ Quick start for developers to build new functionality
- ✔ Operational excellence

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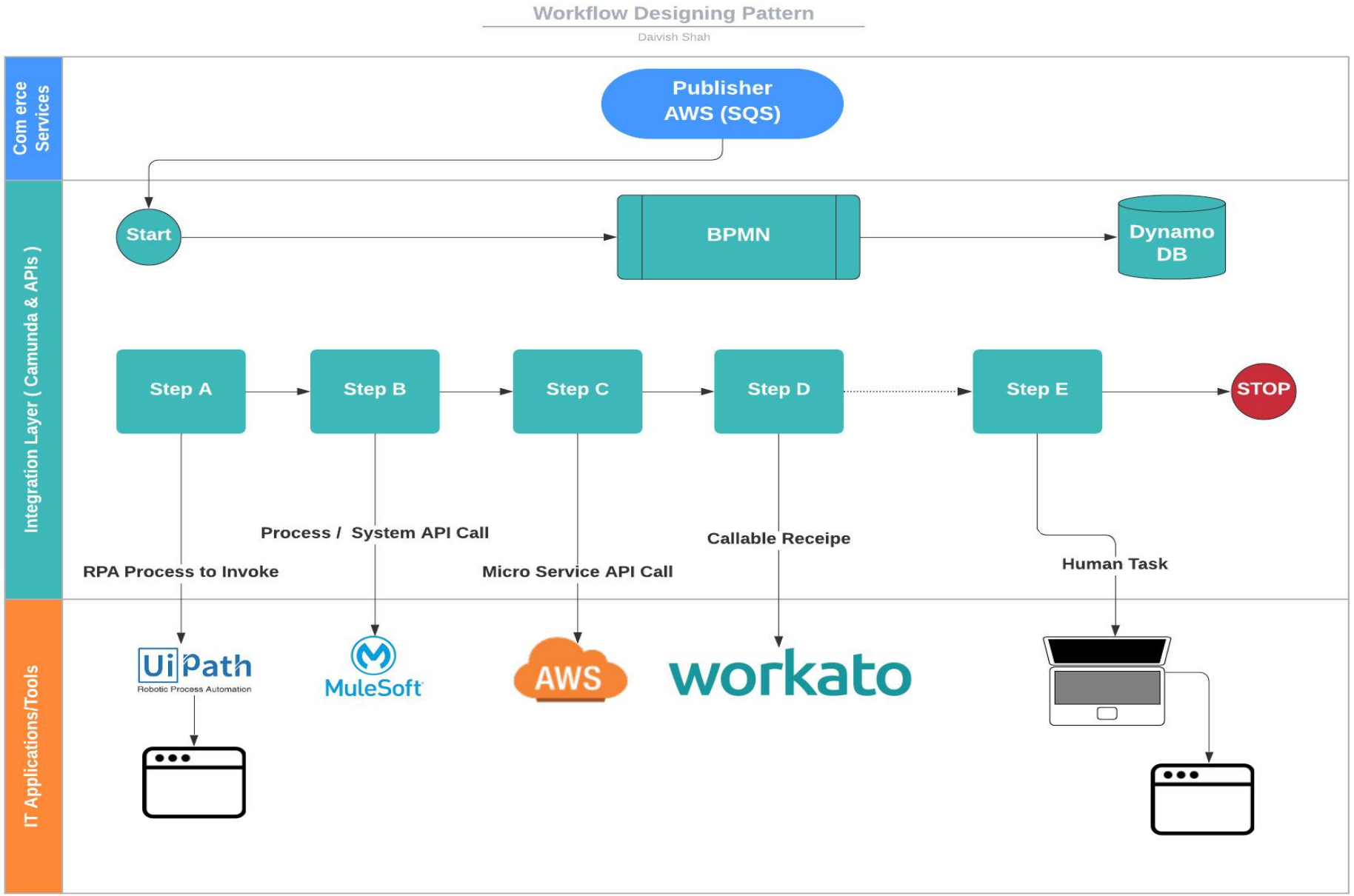
Workflow Pattern using Camunda



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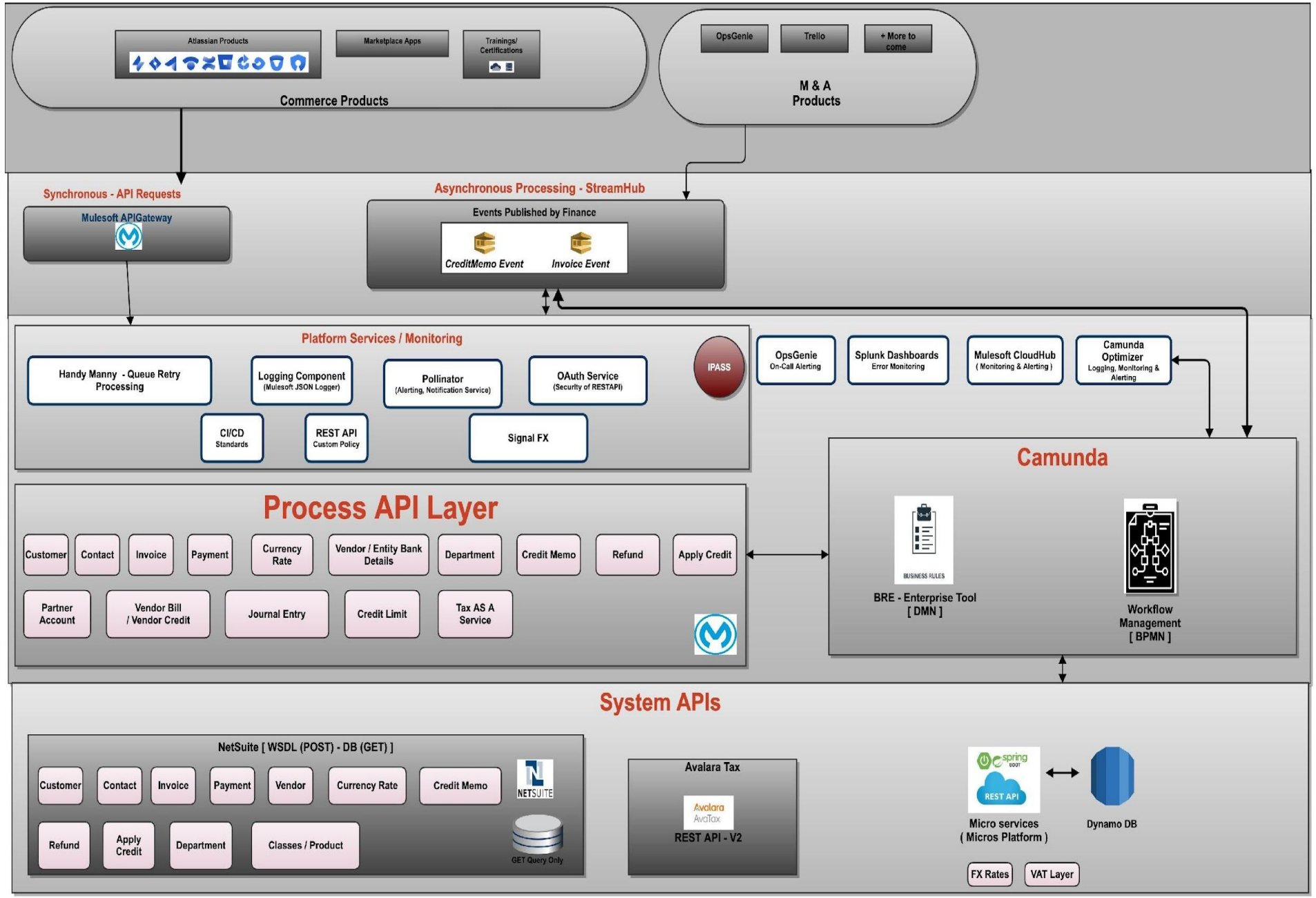
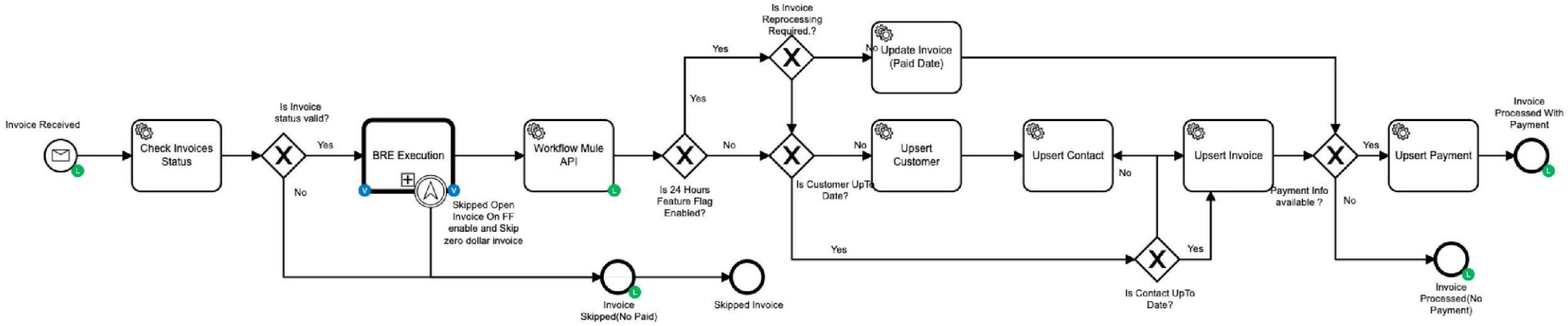
High Level – Layered Architecture for Billing Engine



BPMN Use case – Invoice Workflow



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Why to use DMN ?

- ✔ Decision modeling
- ✔ Business analysts can model the rules
- ✔ Independently unit tested
- ✔ Hot Deployment/changes in production.

Where to use DMN in Finance ?

- ✔ Use cases as below :
  - ❑ Tax Code management
  - ❑ New Product Initiative (NPI)
  - ❑ Contract Modification Flag
  - ❑ Deciding Region
  - ❑ Deciding Discount Type
  - ❑ Sale Action Type
- ✔ Easy to replace DMN functionalities to micro-services to manage it for longer term

What are the benefits ?

- ✔ Clear decision logic
- ✔ Simple Spreadsheets can be replaced with DMN
- ✔ Agility on new/modified changes

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DMN Use Cases

SalesActionPP | **Hit Policy:** First

	When GLP string	And EDITION LEVEL string	And SALE TRANSITION string	Then SALE ACTION string	Annotations
1	"UP"	"UP"	"PaidToPaid"	"UPGRADE"	Compare paid to paid

Decide Reason Code | **Hit Policy:** First

	When Reason Code string	Then Netsuite Reason Notes string	Annotations
1	"atlassian.internal.use"	"Atlassian Internal Use Discount"	-

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Camunda: Operational Benefits

New Product Initiative

- No code changes required (managed by DMN table)
- Limited / No UAT
- Replace DMN with REST API once functionality is available to manage centralize Pricing and Product API available.

Transaction Artifacts

- Sequence-based
- Retry implementation
- Camunda optimizer reporting

Tax Code Related Mappings

- Decoupled architecture
- Integrated tax related mappings and business rules

M&A Product Onboarding

- Simplify M&A product on-boarding
- Monthly/Quarterly/Yearly book closing
- Automated process in NetSuite.

Thank you !!