What problem am I solving?

1. Fast feedback for my business
2. Collect business metrics
3. Deliver customer metrics to different systems
4. Data patterns to support business decisions
Use Case
Agricultural Claim Fund Application form

I need a loan to buy two new trucks!

Tyrion Lannister

I need a loan to build a new barn!

Sansa Stark
Use Case
Agricultural Claim Fund Application

Our example is government grant fund. In our pretend country we want to give money to farmers based on our central government budget per region.

We care about funding distribution per geographical regions.

Sending a few farm fund applications data to kick off Claim Fund processes.

PAM task will be created with status Pending, then the staff members will decide if the loan will be approved or rejected.

Business information was sent to Apache Kafka during the application process which will be displayed via Grafana for analysis.
Analysing data

- Custom Metrics
- Collect Valuable Data
- Feed External Systems
- Display Metrics for Analysis
- Facts to Support Decisions
- Improved Business Processes
Deploying on OpenShift Container Platform
OpenShift Container Platform

- Platform as a Service tooling
- Foundation to deploy our application
- We will deploy Red Hat Process Automation Kie Server, Red Hat AMQ Streams, Grafana and other components

https://drive.google.com/open?id=1O08HNSqvvukHBdQj4UxKq7ljuIWF9lZf
Business Automation Portfolio

- Complex event processing
- Business rules
- Business optimization
- Process/Case management
- Entando UX platform
PROCESS DESIGNER

Seamless process modeling

- Based on BPMN v2 spec
  - Process Execution compliant

- Extensible Palette with custom services

- Case Management extensions
  - Case file
  - Case roles
  - Milestone task

- Form generation

- Export to PNG, PDF, SVG, BPMN2
Claim Fund Process
Main process model
PROCESS AUTOMATION

Integration using Work Item Handler (Publish Kafka Messaging node)

Service task component list

- **CamelSQLConnector**: Use Apache Camel connectors in your processes. Execute SQL query at a Camel endpoint and retrieve results

- **CamelXSLTConnector**: Use Apache Camel connectors in your processes. Process a message using an XSLT template

- **DecisionTask**: Execute business rule or service tasks. Execute a DMN decision task

- **Email**: Send an email. Send email

- **JMSSendTask**: Send JMS messages. Send JMS Message

- **KafkaPublish**: Publish kafka messages from a process. Publish message to a kafka topic

More...
PROCESS AUTOMATION
Integration using Work Item Handler (Custom node)

- Available as maven archetype jbpm-workitems-archetype
- You can change names, implement your own code, build it
- Install the jar file on Business Central
- It will be ready to use on your process
Kafka Process Integration

- Part of services task list
- Reusable integration node
- Configurable way to publish messaging
Apache Kafka

- Publish/Subscribe messaging system
- Deployed using Red Hat AMQ Streams
- Topics are defined as objects inside of OpenShift
- Cluster is formed of brokers and zookeeper. Messaging entity operator deploys topics into the cluster
Red Hat AMQ
InfluxDB

- Time series data store, this is our “external” system for metrics
- Two series of data: loan_updates and budget_updates
- It is FAST and easy to use with Grafana
Other components

**kafka-broker**
Deployed on Openshift

Kafka-broker listens to the message queues and updates influxdb
Other components

**Data-generator**
Running local

Generate random data sets to send into PAM claim fund process via rest

**Task-automation**
Running local

Simulate user task completion which may approve or reject the customer application
Grafana

- Visualisation of our data
- Real-time feedback from our process
- Fast, client side rendering
- Open source analytic tool
Conclusion

- Red Hat PAM is flexible, configurable, microservice, cloud supported
- Red Hat AMQ Stream is faster, easy to integrate, cloud supported
- Collect valuable business data from your process to improve business decisions
- Real time data analyses