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Vultus

FARMING ANOMALY DETECTOR

Introduction

SRS creation

toghether with

Vultus

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Problem Description

Anomalies exists

and create huge amounts of waste

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Project Mission

Apply Machine Learning

Utilize Satellite Data

GOAL: Prevent Anomalies

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Stakeholders

Customer

Farmer Management System (FMS)

Copernicus [1]

Investors and Product Owner (Vultus)

Other stakeholders

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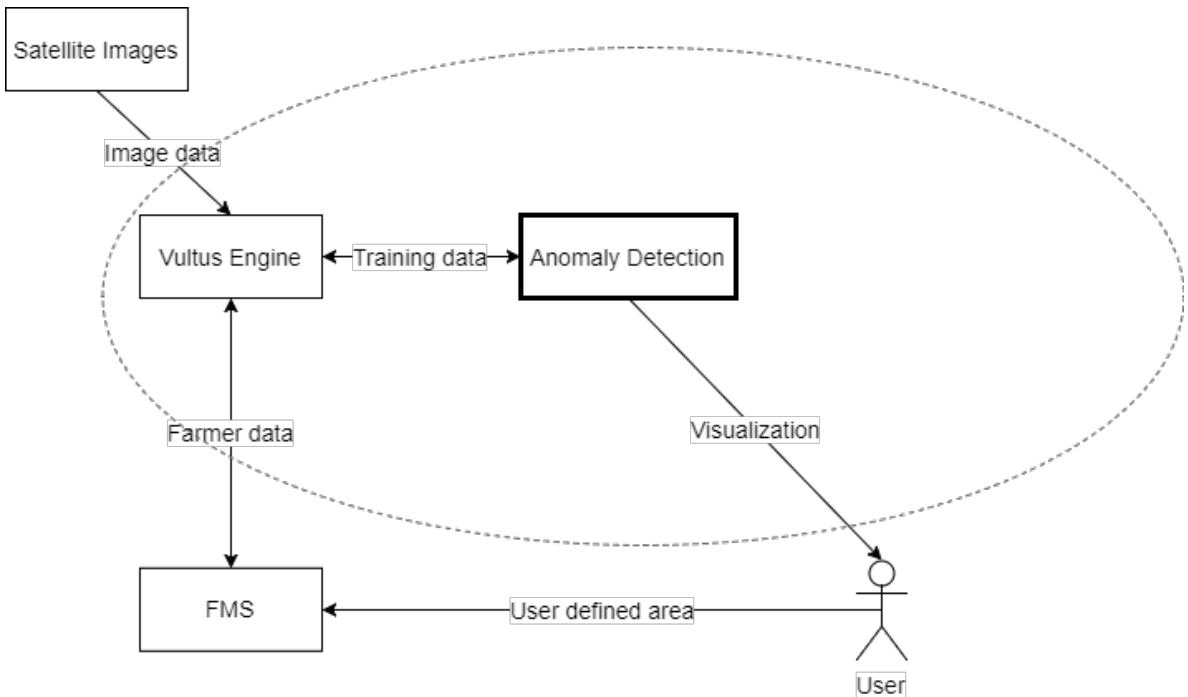
Context Diagram



Alert Farmer of Anomaly [2]

Purpose: Alert the farmer of a potential problem.

Trigger/Precondition: Task 6.2.1.2 [2].

Frequency: On anomaly detected.

Example Solution: Push notifications, emails, text messages.

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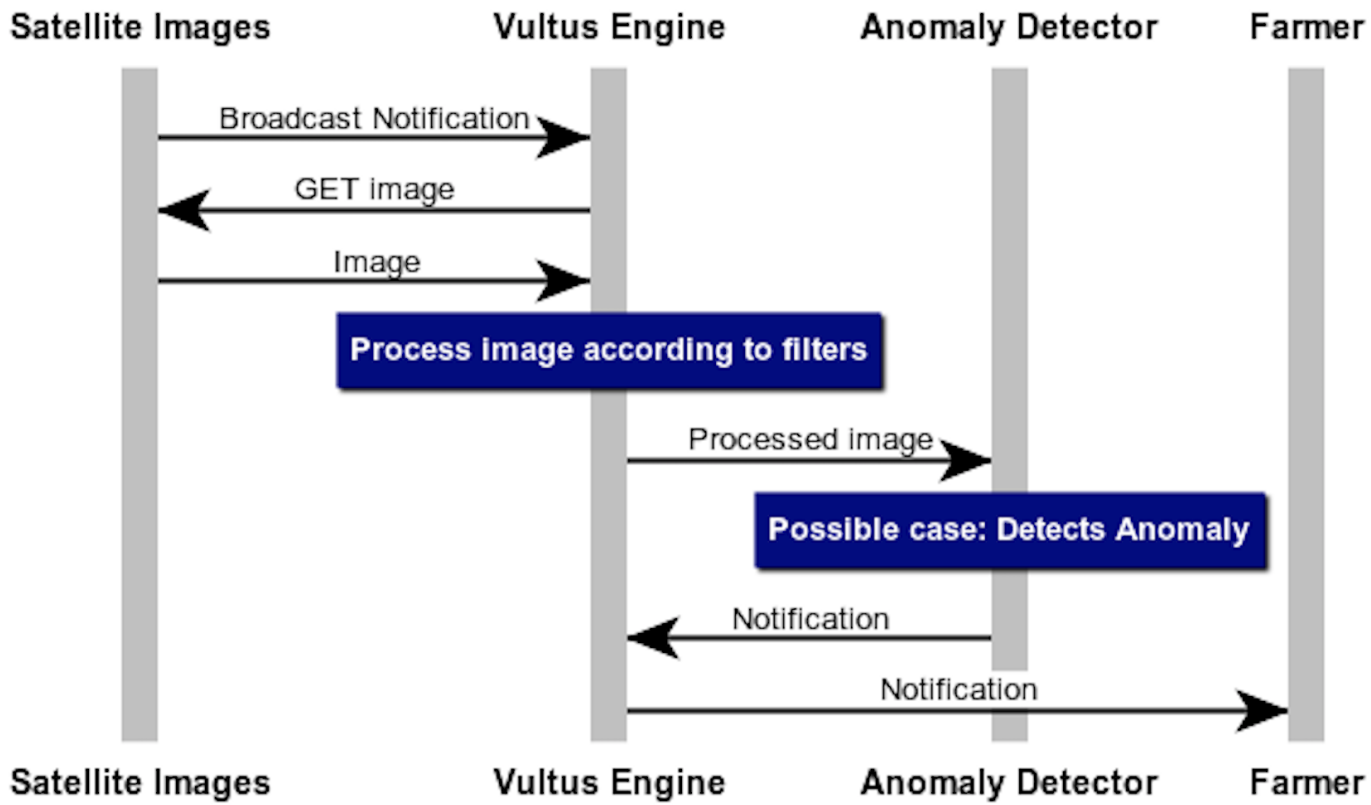
New Satellite Image is Available [2]



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Deliver Farmer Data from FMS to Vultus Engine [2]

Purpose: Deliver Farmer Related Data to Vultus Engine.

Trigger/Precondition: On request.

Frequency: Varying.

Example Solution: Using any available open API from the FMS.

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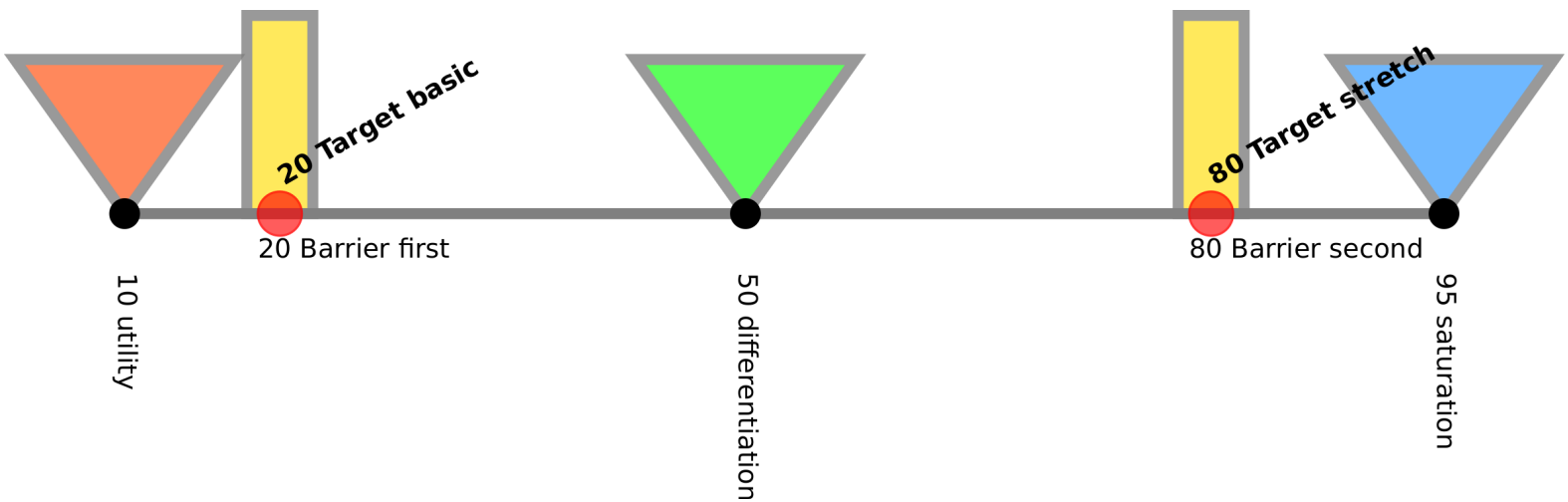
Example Quality Requirement [2]

50% of the information delivered to the customer should be correct, as in not giving false positives or false negatives in anomaly detection. This is depicted in figure 1 as the differentiation level.

This is an Accuracy Requirement according to [3].

Figure: Hit Rate in accuracy



Example Design Requirements [2]

The color green should be used to show no anomalies

Any anomaly found should use a scale from yellow: **Low severity** to red: **High severity**

Elicitation Methods Utilized

Interviews

Work Shops

Discussions

Research

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Project Experiences

Communication with Vultus

Communication within group

Elicitation Methods

SRS creation

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References

Copernicus, Europe's eyes on Earth. `http://www.copernicus.eu` Fetched: 2017-11-07.

E. Havic, M. Johansson, N. Bruce, O. Rydh, P. Skopal. *Vultus - Anomaly Detection. Software Requirement Specification* 2017.

Lausen, Soren. *Software requirements – Styles and Techniques*. 2012. Pearson Education Limited, Great Britain

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