AVEVAWORLD

AVEVA WORLD

APRIL 8, 2025

Grafcet: How Food & Beverage companies benefit from real-time data in the cloud

Lucas Umeda – Grafcet

AVEVA

© 2025 AVEVA Group Limited or its subsidiaries. All rights reserved.

How Food and Beverage companies benefit from real-time data in the cloud

AVEVA

GRAFCET
SOLUÇÕES TECNOLÓGICAS

Speakers

Lucas Umeda

Head of Operation

lucas@grafcet.com.br

Talk to me:

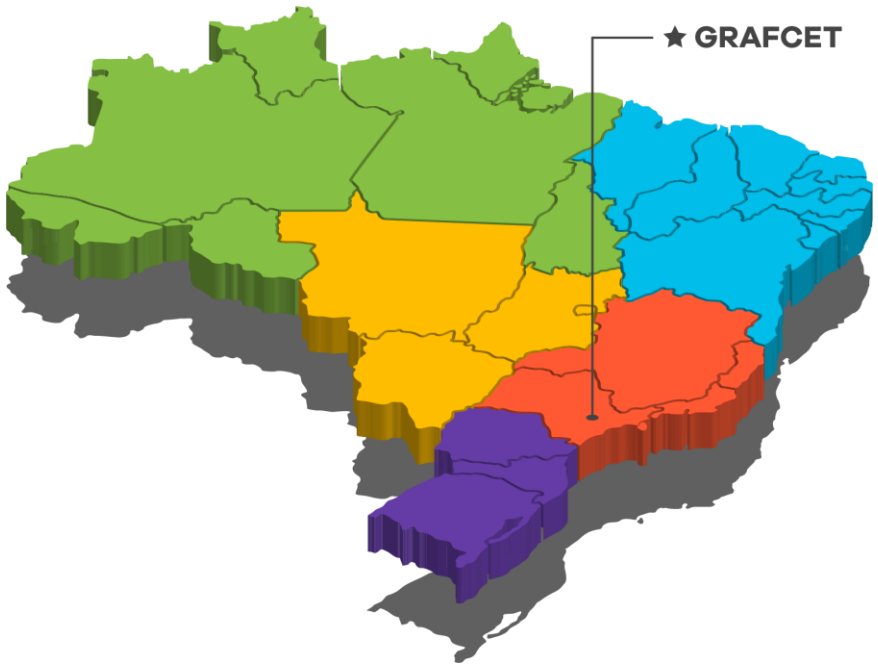
Professional Experience

6 years in Grafcet
Marketing, Operation, Finance

Background **Stock Market**

Academic Background

- **Production Engineer**
- Post Graduation - Administration
- Specialization in AI
- MBA Software Engineering



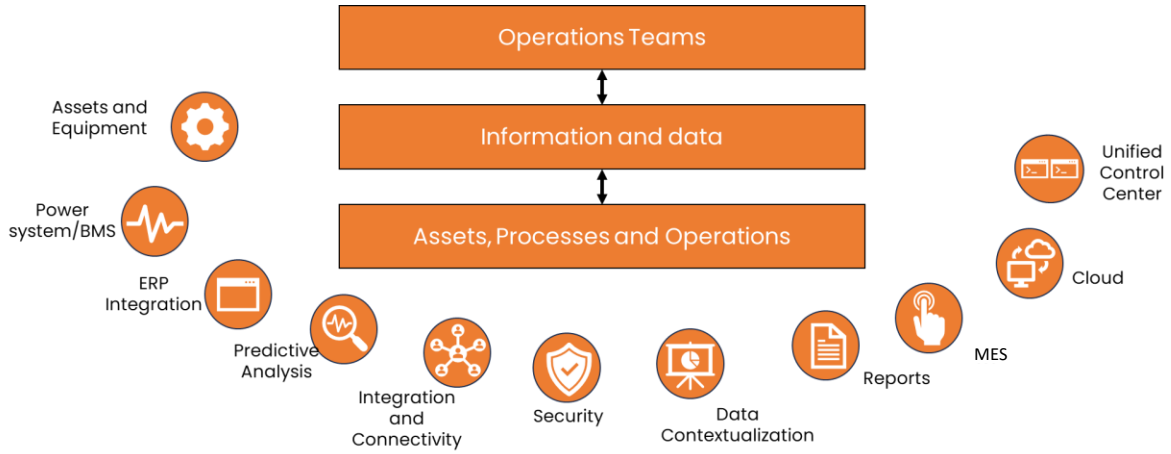
Who We are

Grafcet is an engineering company that has been developing technological solutions for implementing digital transformation projects since **1992**.

More than **1,500** projects carried out in the following technological segments:

- Industrial Automation
- MES systems
- Data Analytics

Systems Integration



GRAFCET
SOLUÇÕES TECNOLÓGICAS

AVEVA

Endorsed System Integrator by AVEVA

AVEVA MES Certified

Aveva PI Integrator

Industries

- Food and Beverage
- Infrastructure
- Oil & Gas
- WWW
- Chemicals
- MMM
- Data Centers

Our Projects

About our client

4 plants around the world. One is the **biggest orange juice** processing plant in the world

5 maritime terminals to distribute to the world

Over 20 farms supplying oranges to the industry.

20% of the global market share and 40% of all orange juice produced is exported by Brazil.

About our client

A global leader in the orange juice industry, managing an integrated supply chain from cultivation to distribution. With one of the world's largest processing plants in Brazil and strategically located **near capital and maritime terminals**, it ensures **high-quality production and efficient global delivery**. The company prioritizes innovation, sustainability, and operational excellence to maintain its industry leadership.

Products:

- **Orange juice**
- Animal feed
- Essential oils, pulps, and essences

Final Products:

NFC – Orange juice sold in supermarkets
FOP – Frozen Orange Juice
FCOJ – Frozen Concentrated Orange Juice

Challenges

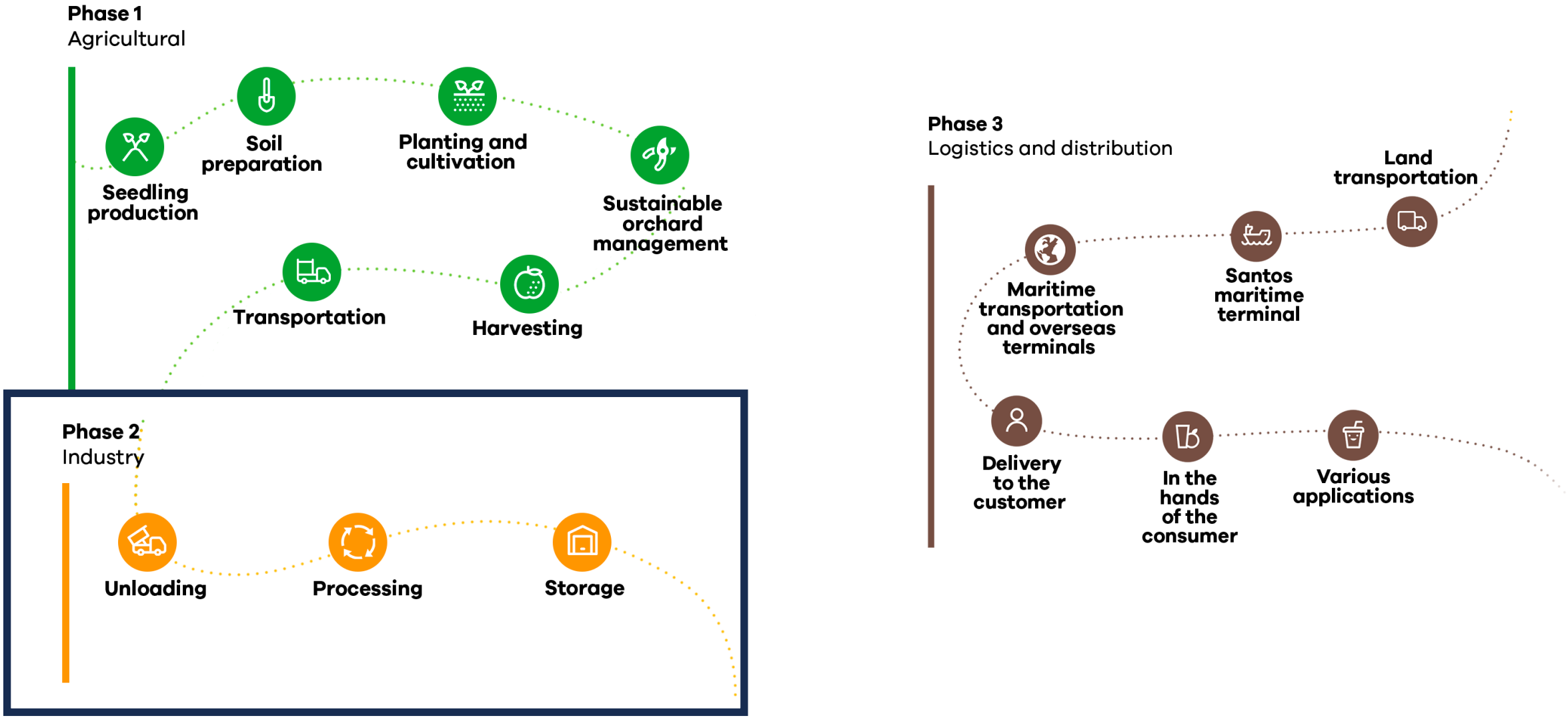
- **Need for visibility** of tank levels at the Port of Santos.
- **Need for visibility** of operational capacity and inventory
- The current **In house system** is outdated and proprietary used for managing information of the operation, requiring specialized labor.
- Current system is limited and does not attend with all client's requirements
- **Lack of dashboards** for managerial data analysis
- Integration with ERP system
- **Reduce manual data input** and paper usage

Challenges in real-time data sharing among organizations caused by legacy system limitations.

Lack of visibility and delays in decision-making for critical processes between organization

High costs associated with implementing an on-premise solution

Operational Process



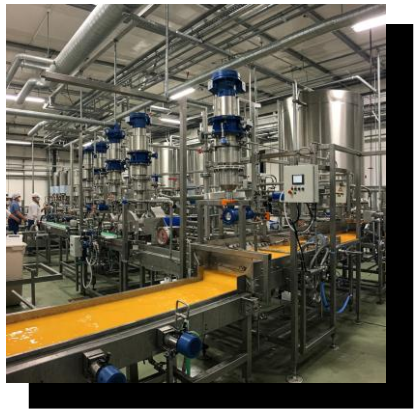
Phase 2 - Process

Transport the orange

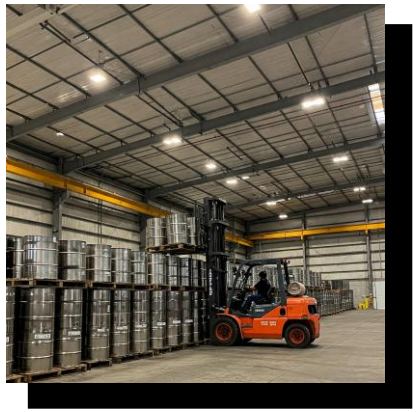
Quality - Selection of good orange

Cleaning and sanitization of the orange

Extract the juice from the orange



Pasteurization/ Evaporation of the Orange juice



Tanks with Orange juice

KPIs

GRAFCET
SOLUÇÕES TECNOLÓGICAS

Parking

-Quantity of trucks
-Quantity of boxes

Bins (Silos)

Amount of trucks on BINs
Amount of boxes on BINs

Extractors

-Amount of boxes processed
-**Forecast of boxes** that will be processed
-Amount of **extractors running**

Pasteurizer/ Evaporator

Pasteurizer (**NFC** or **FOP** - Pulp)

-Amount of liters/ kilos processed
-Utilization of the capacity of Pasteurizer

Evaporator (**FCOJ**)

-Amount of kilos produced
-Utilization of the capacity of evaporator

Solution

GRAFCET SOLUÇÕES TECNOLÓGICAS

Solution

Utilization of **Data Services** to share data and collect from Historian

System Platform

AVEVA Historian

Collection key information to build operational dashboards to drive solution

Cloud solution which saved approximately 30% of costs

CONNECT Data Services

CONNECT Visualization

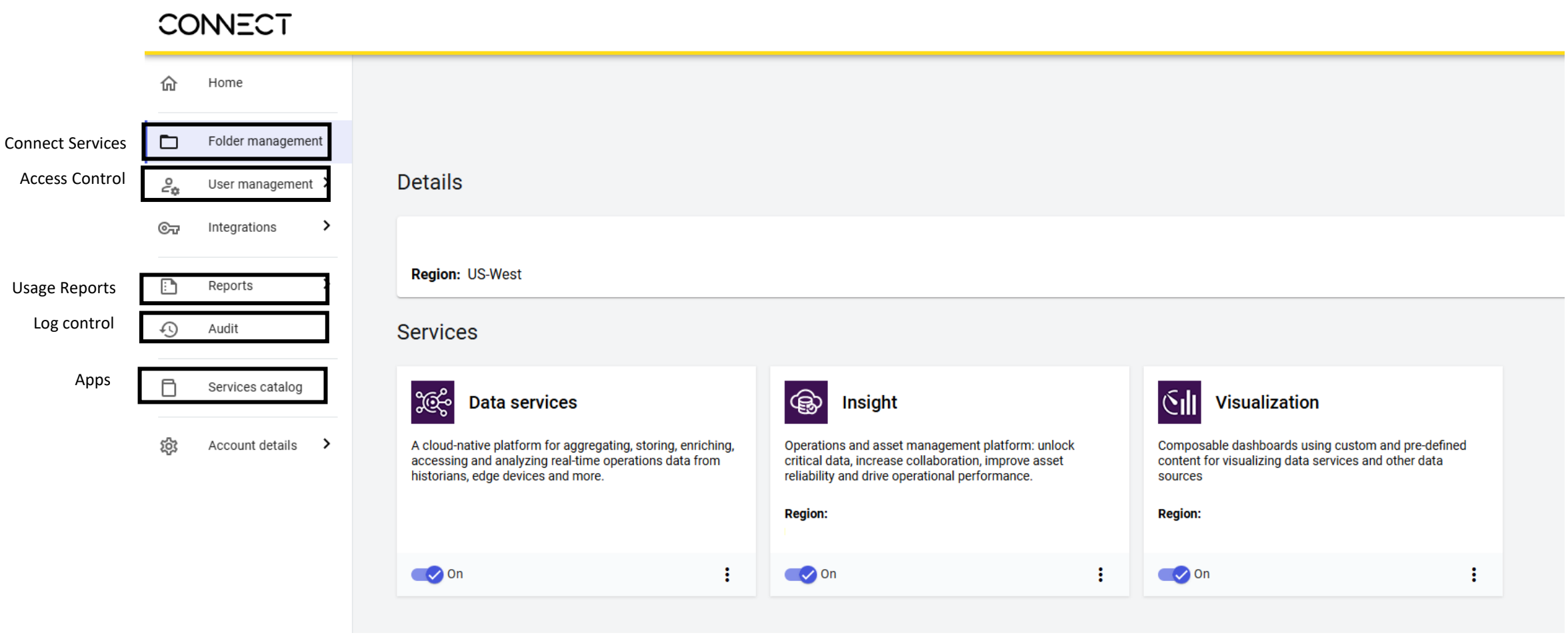
Challenges

Challenges in **real-time data** sharing among organizations caused by legacy system limitations.

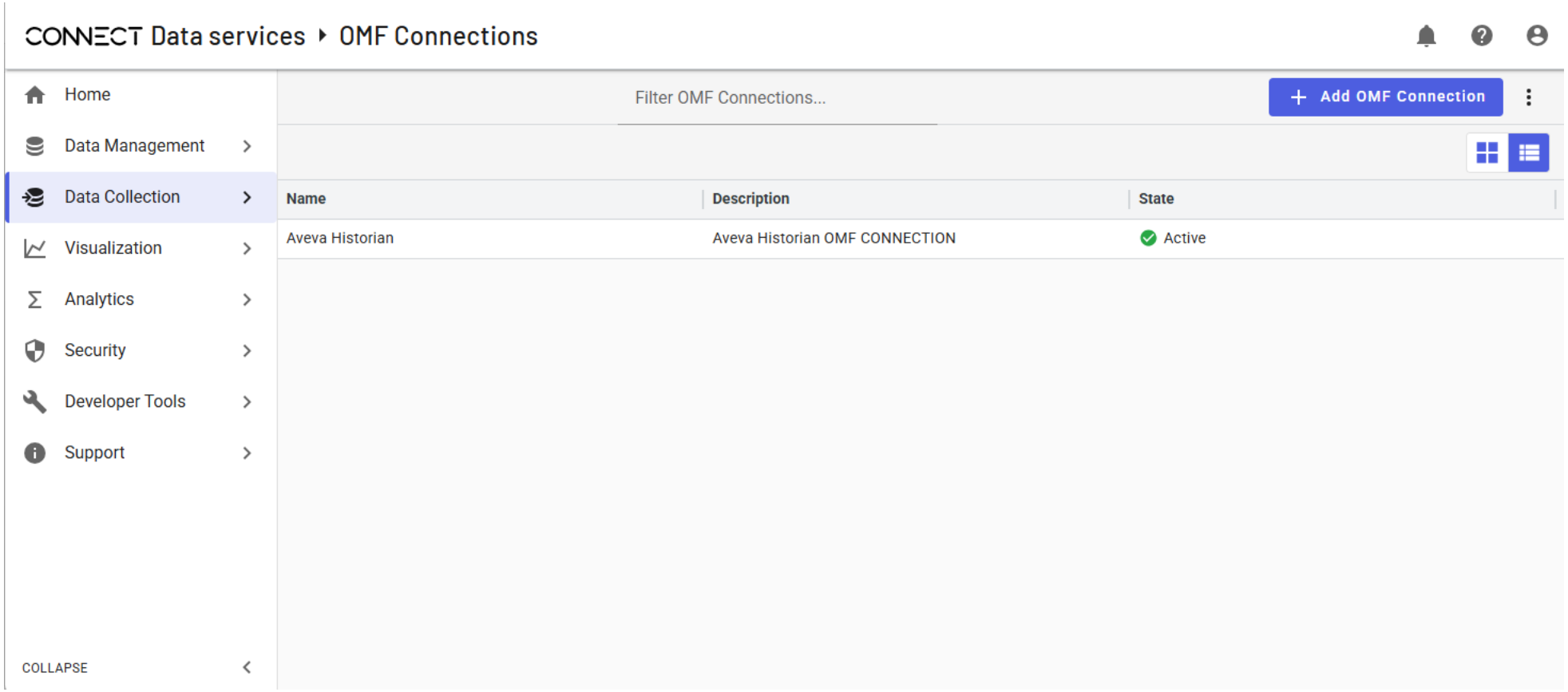
Lack of visibility and **delays in decision-making** for critical processes between organization

High costs associated with implementing an on-premise solution

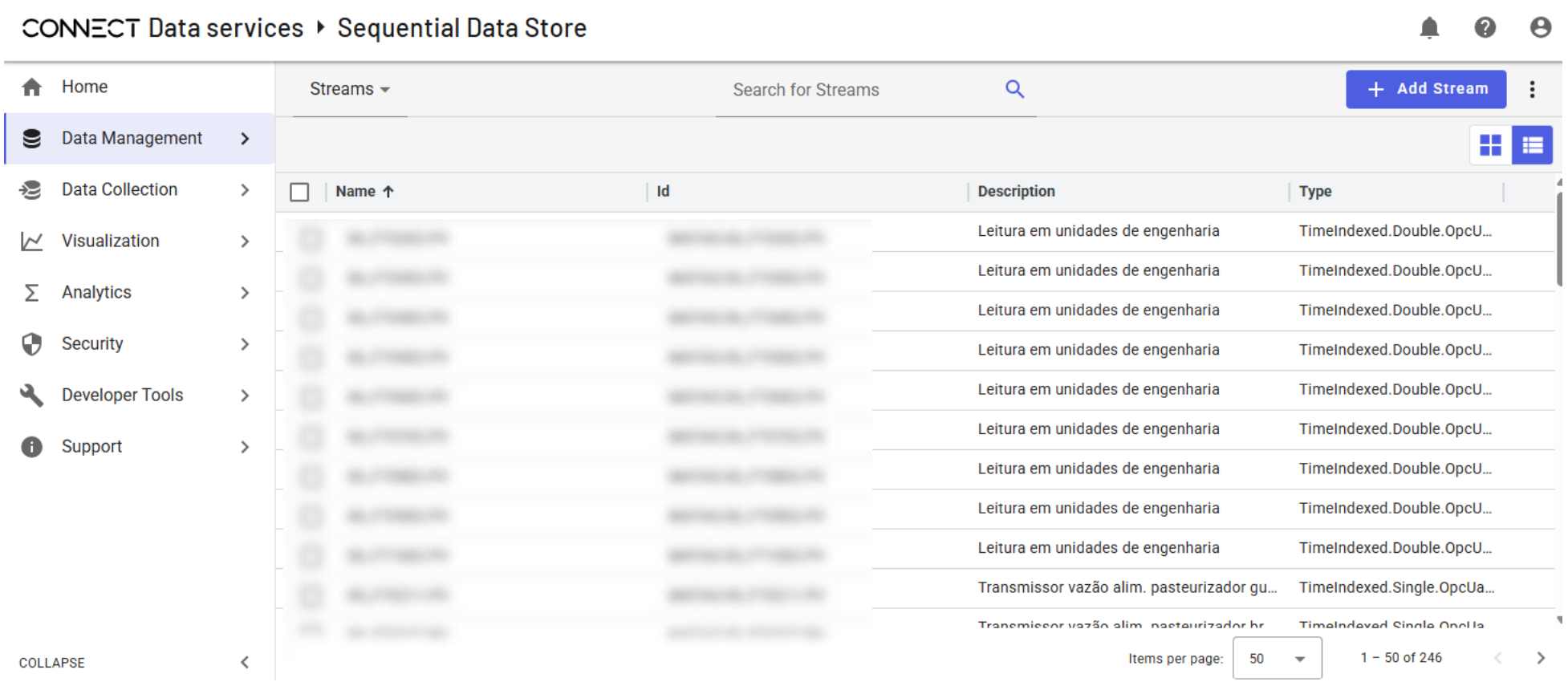
Data Services pre configuration



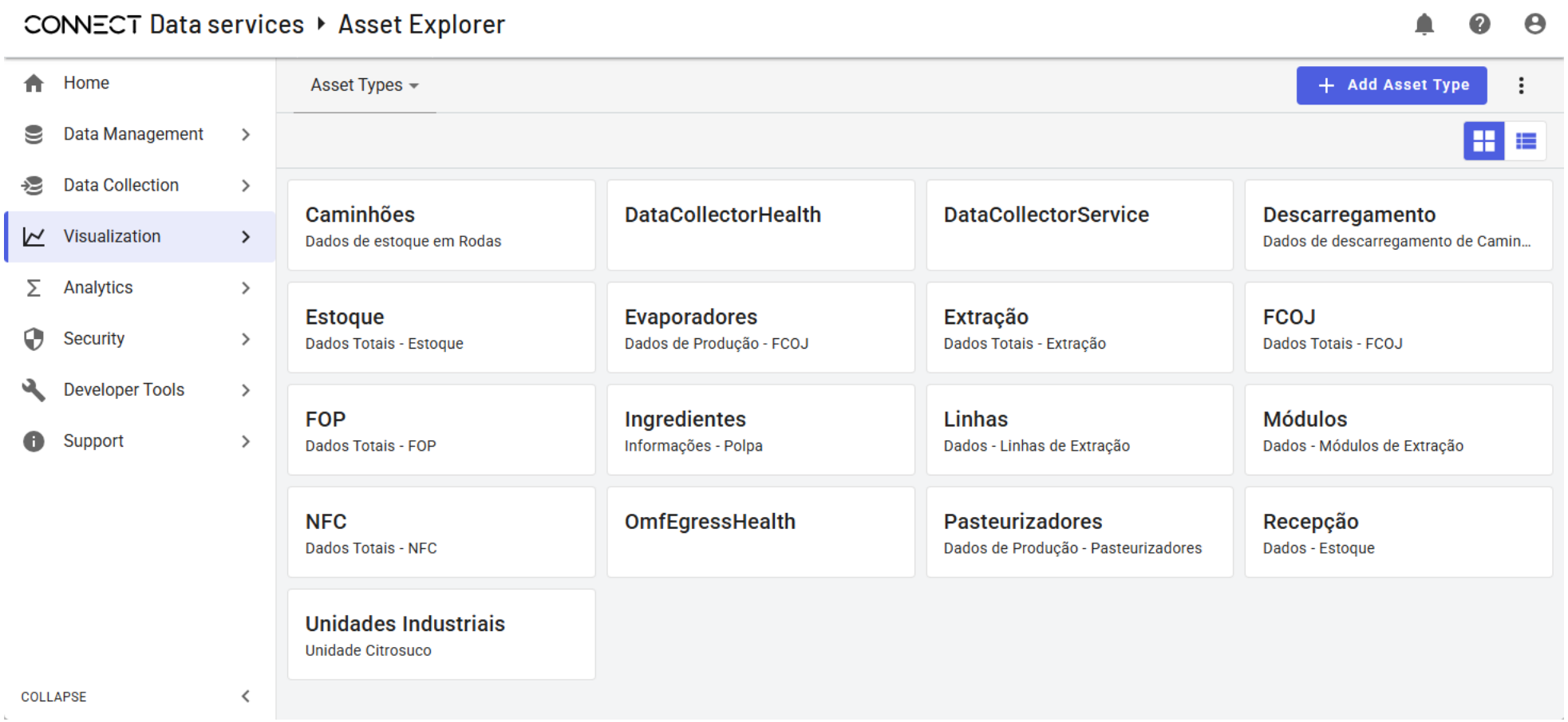
Data Services



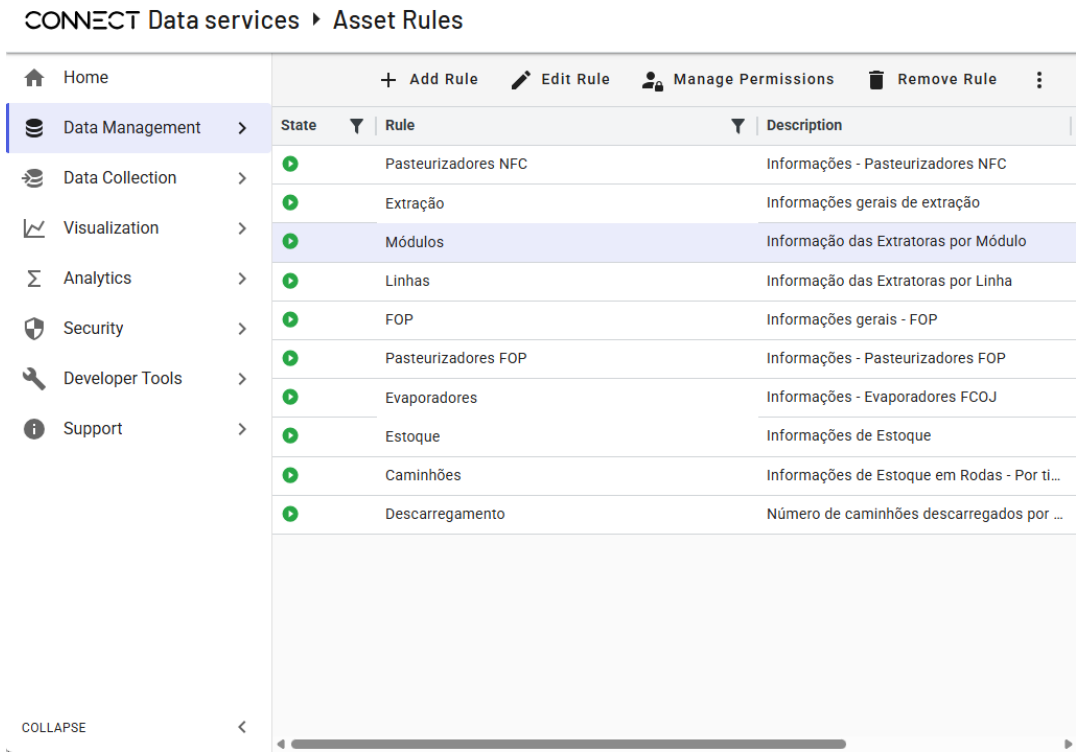
Data Services

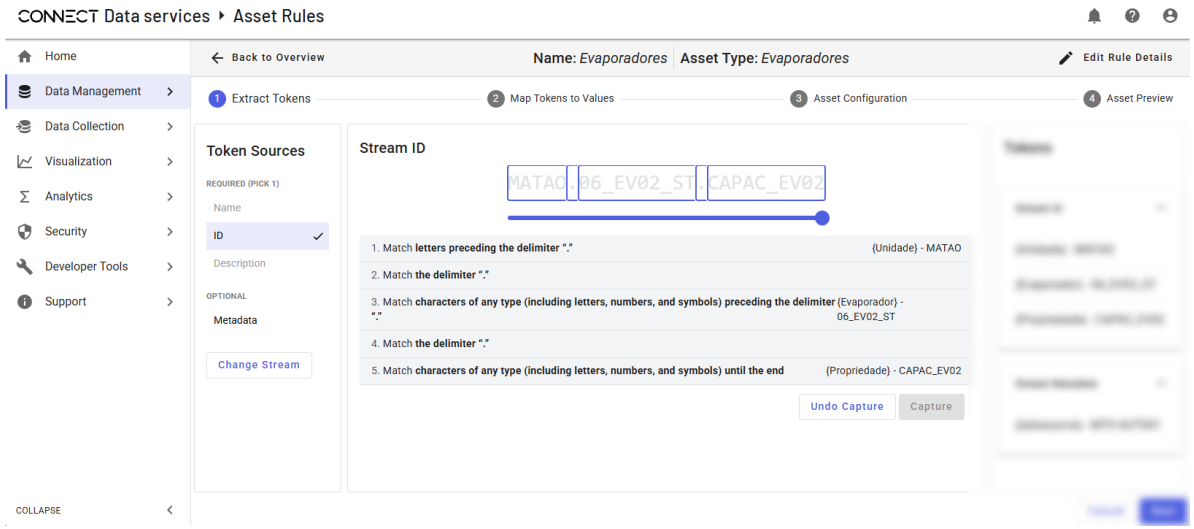


Data Services – Asset Explorer

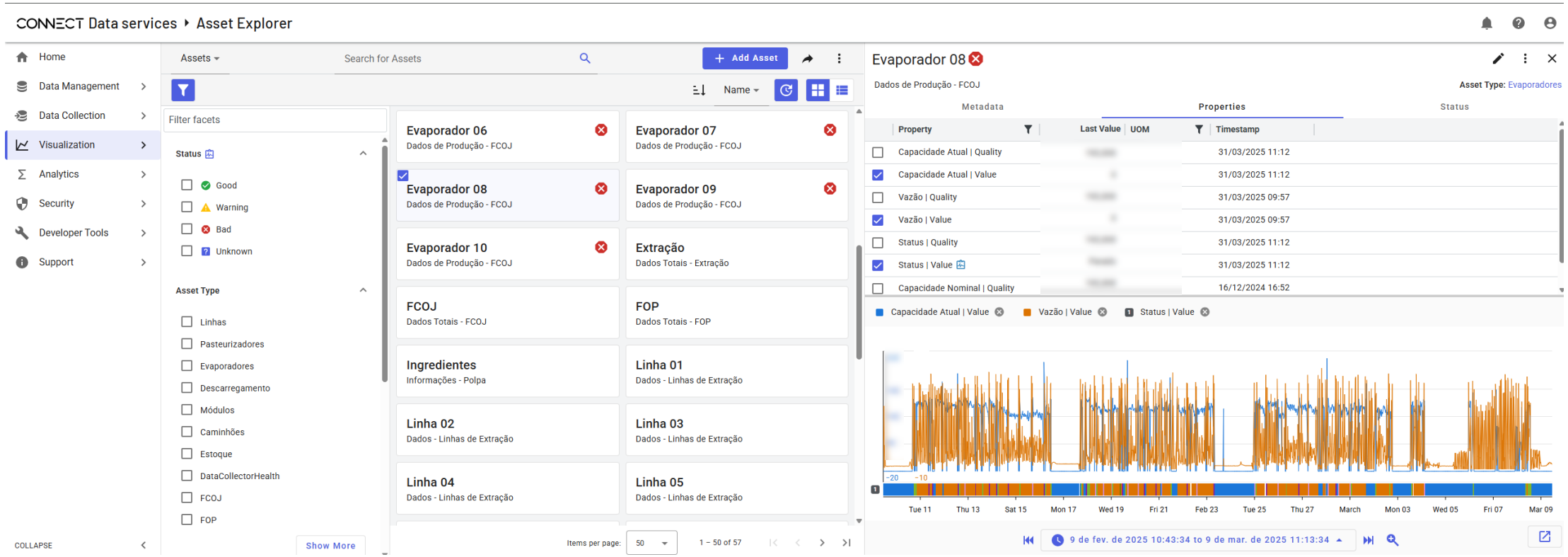


Data Services – Asset Rule

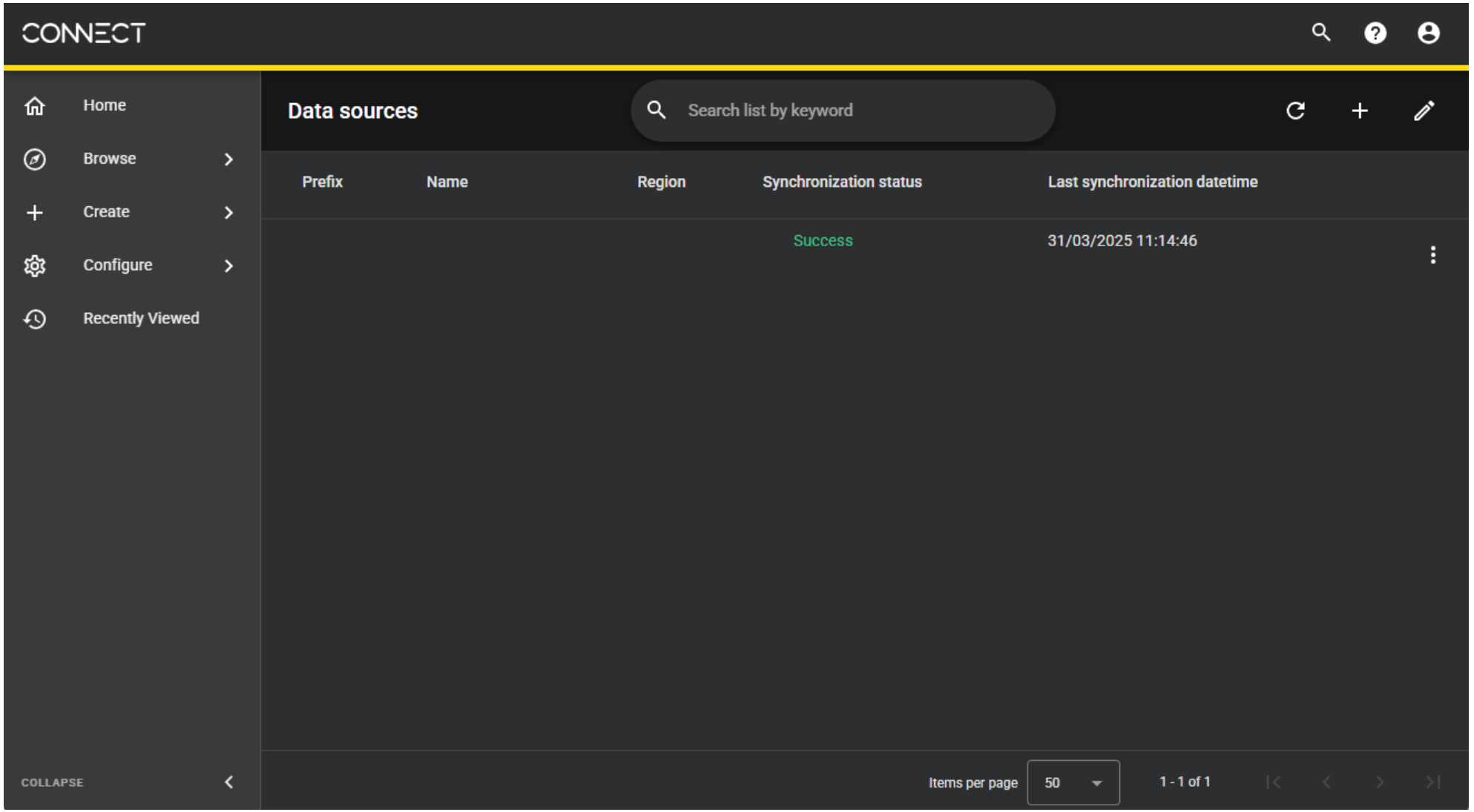




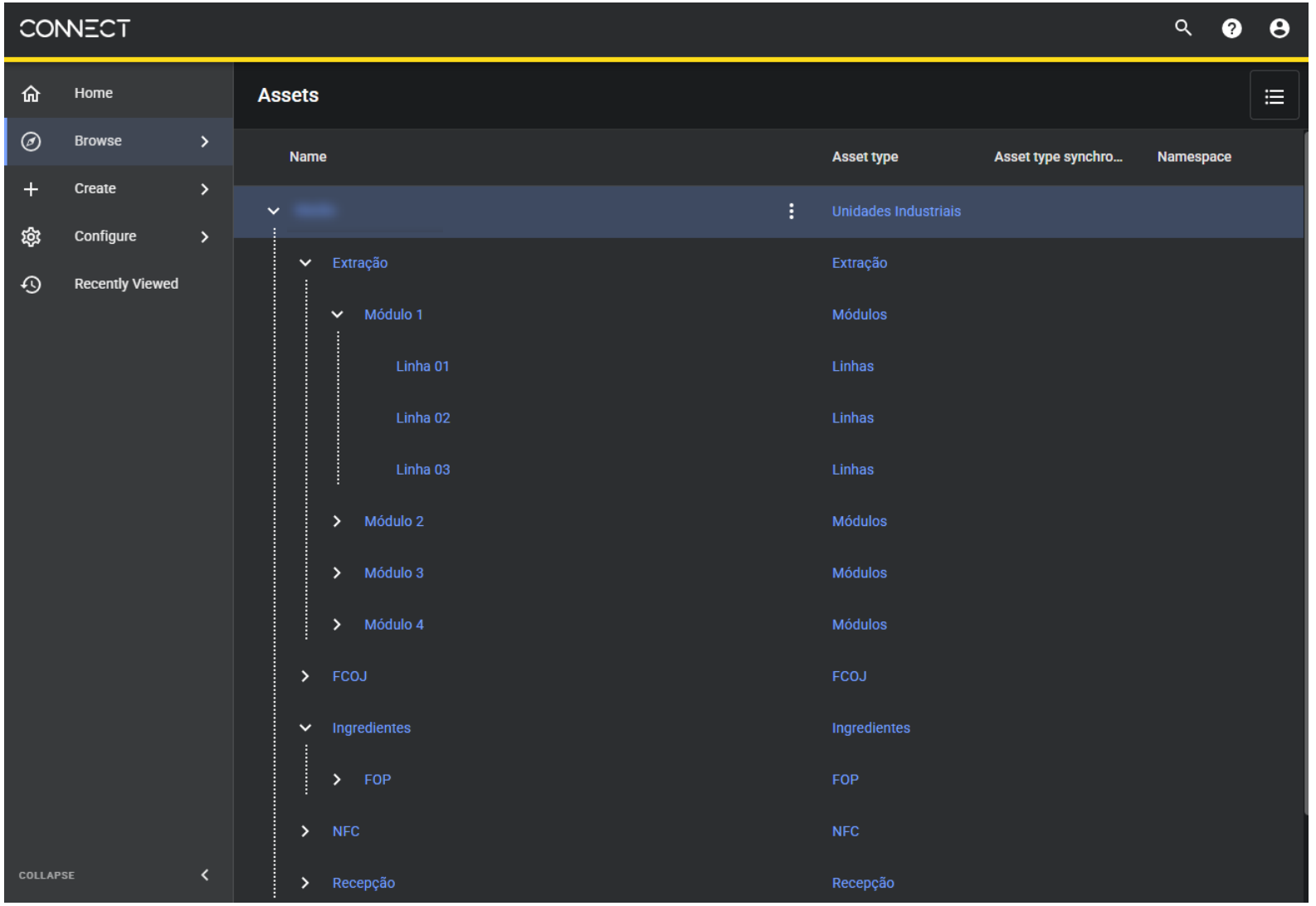
Data Services – Asset Explorer



Data Services to Visualization

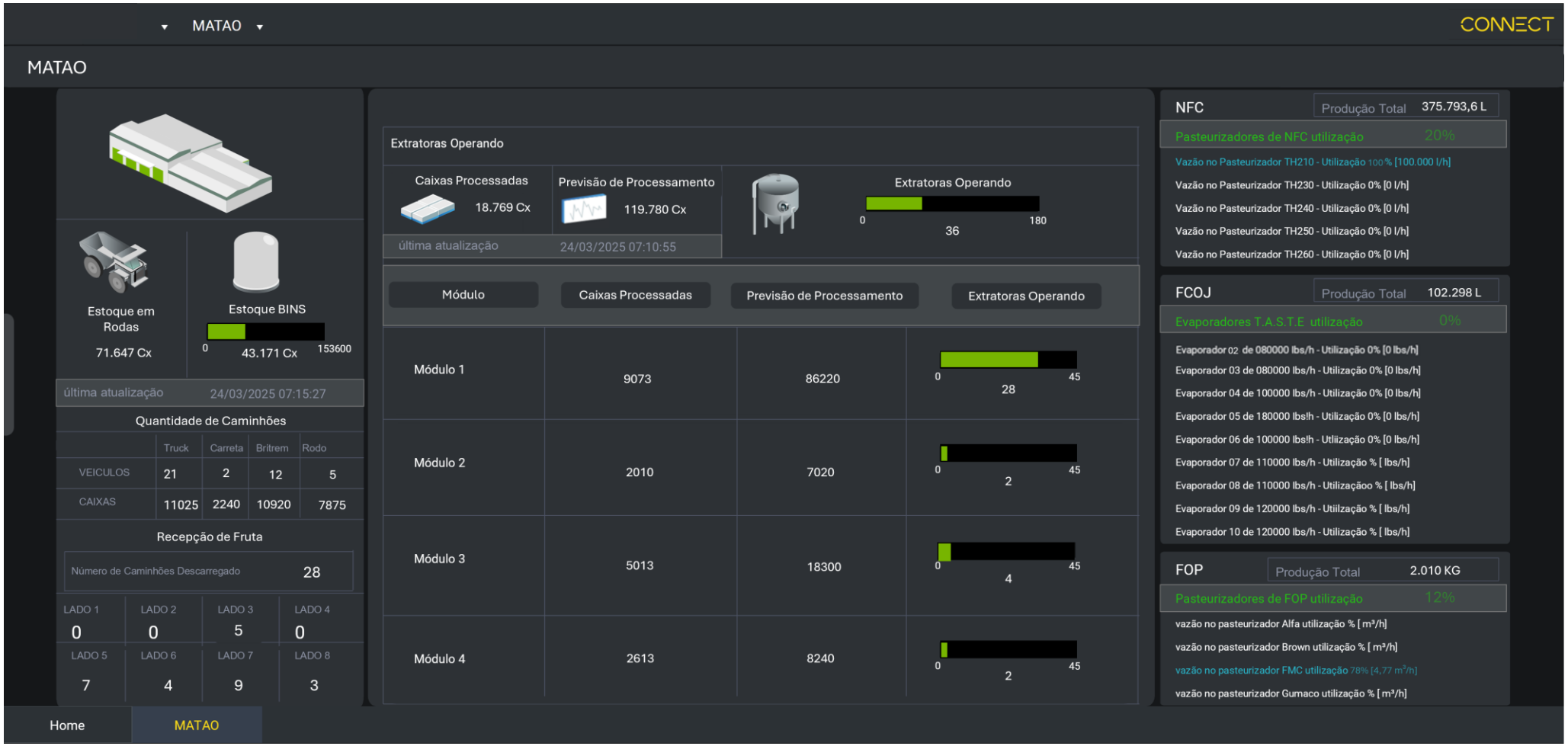


Visualization

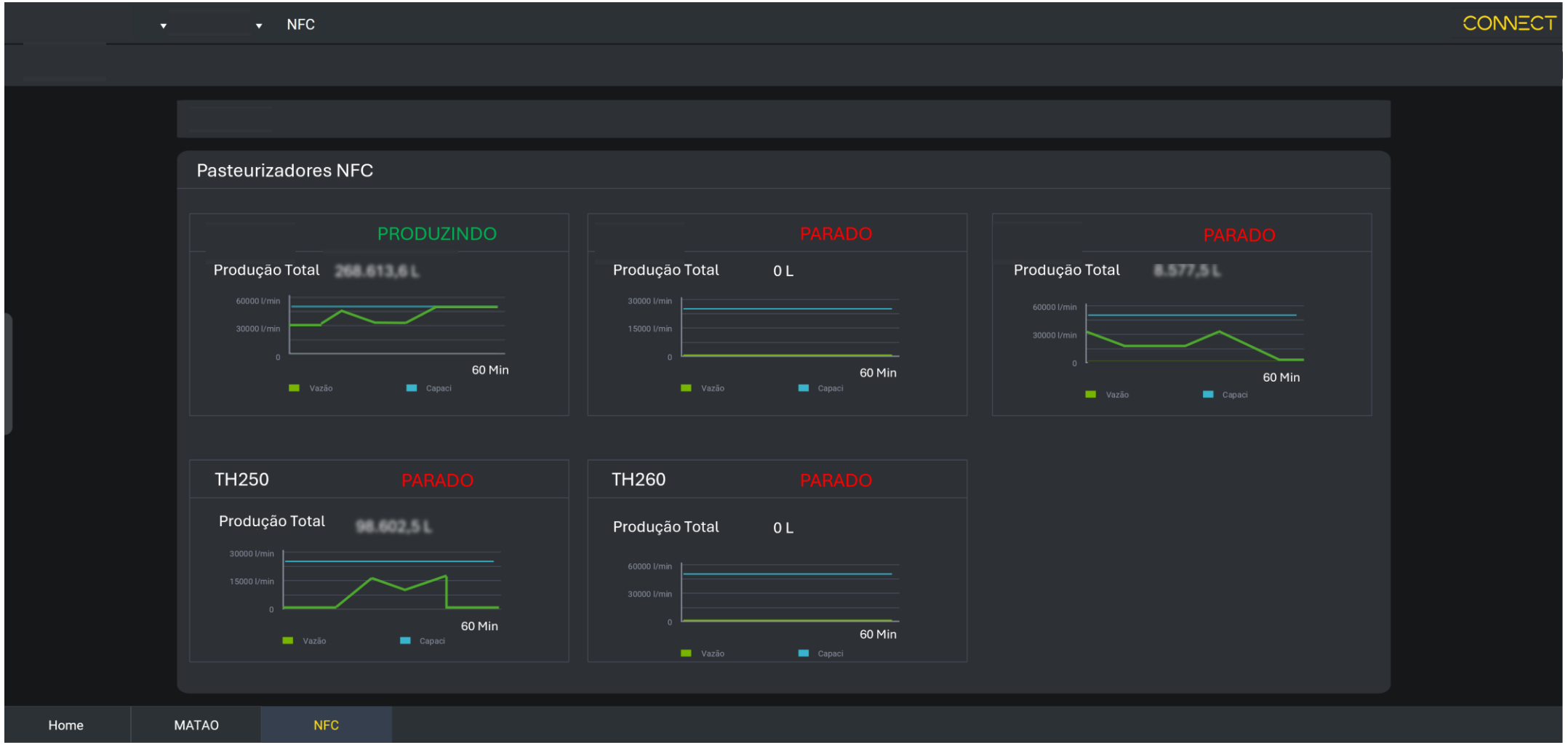


Visualization

Visualization



Visualization



Results

- Control of main KPIs in the factory
- Better decision making
- Phase 2 integrated, possibility to share data with Phase 1 and phase 3

  – Full process integration
- Corporate visualization
- Data Infrastructure

Next Steps

- Implementation of Aveva PI
- Integration with PI on premise
- + Connect on cloud
- Integration of all plants
- Corporate Data + Operational data

CONSUMER PRODUCTS | BRAZIL

Food and Beverage companies benefit from real-time data in the cloud

Challenge

- Legacy system caused limitations for real-time data sharing
- Lack of visibility and delays in decision-making for critical processes between organization
- High costs associated with implementing an on-premise solution

Solution

- Implementation of CONNECT Data Services and CONNECT Visualization to integrate AVEVA System Platform and AVEVA Historian data to show and share real time information on the cloud

Results

- **Reduction of IT infrastructure costs by 30% due to deployment on the cloud**
- **Centralization of data from different process sources**
- **Simplified real-time data sharing between multiple organizations, improving data transparency, collaboration, trust and mobile visualization on the cloud**
- **Integration of plant data, with the possibility of expansion throughout the production chain**

© 2025 AVEVA Group Limited or its subsidiaries. All rights reserved.