20TH ANNIVERSARY EDITION

WSO2CON ASIA

PLATFORMLESS MODERNIZATION

Integrate Data, Apps, AI, and APIs Using BI and Devant



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Session outline

- Part 1
  - Introduction to WSO2 Integrator: BI & Devant
  - O2Mart Use Case with WSO2 Integrator: BI
    - Automation
    - Integration as an API

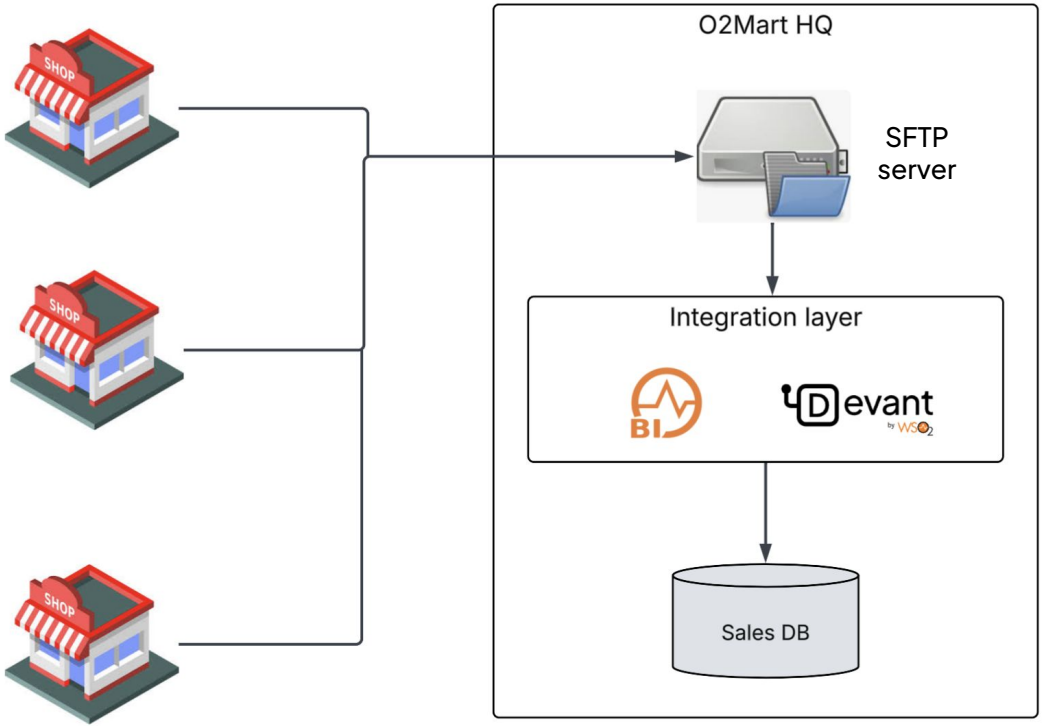
- Part 2
  - O2Mart Use Case with WSO2 Integrator: BI
    - File Integration
    - Data access
  - Devant
  - RAG
  - WSO2 Integrator: MI

O2Mart Use Case

– File Integrations –

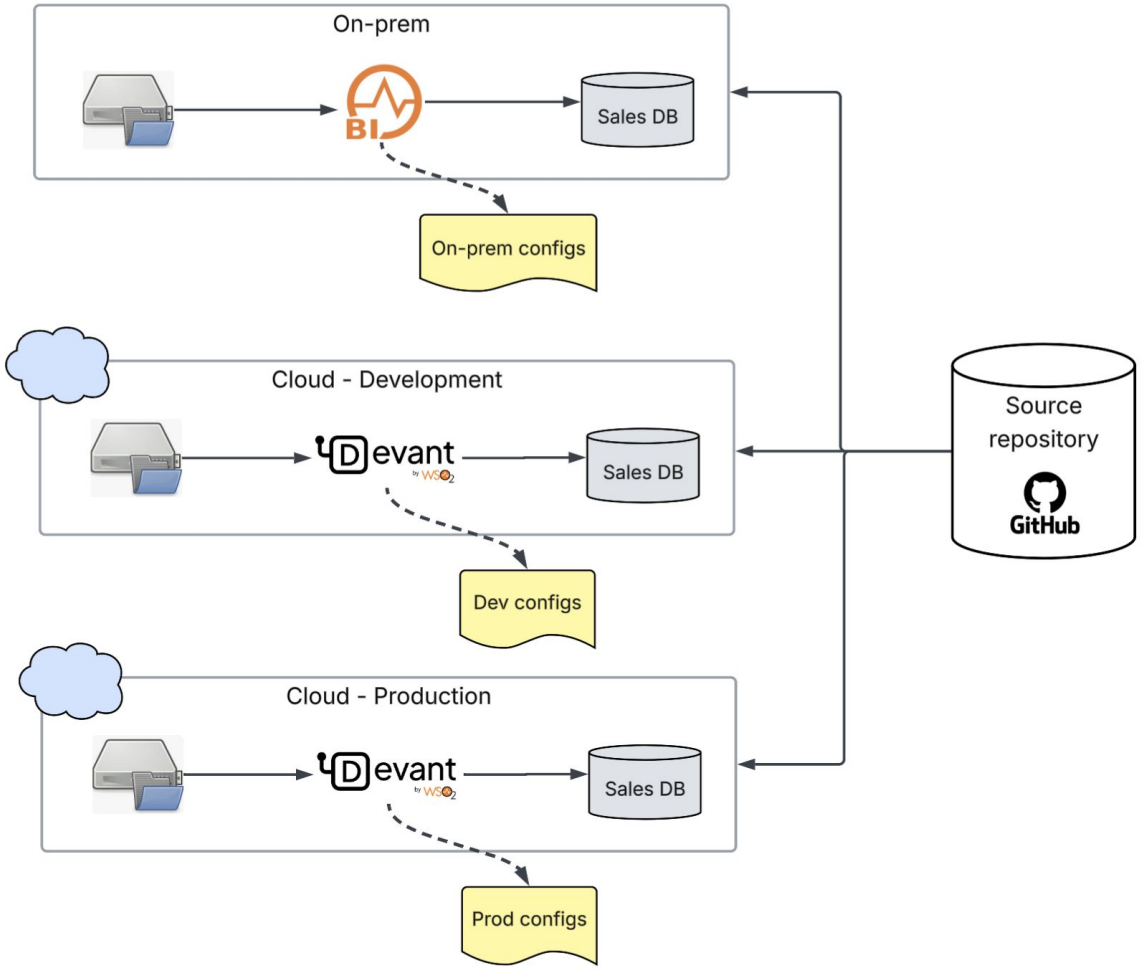


Retail outlets upload CSV files containing daily sales data to central SFTP server hosted in O2Mart HQ. Integration layer of the O2Mart has to read these files and populate a MySQL database.



Same integrations..

multiple environments...



WSO2 Integrator: MI

What is WSO2 Integrator: MI?

- A lightweight, cloud-native integration runtime designed for microservices-based architectures.
- Part of the WSO2 Enterprise Integrator platform.
- Ideal for API orchestration, data transformation, and service mediation.



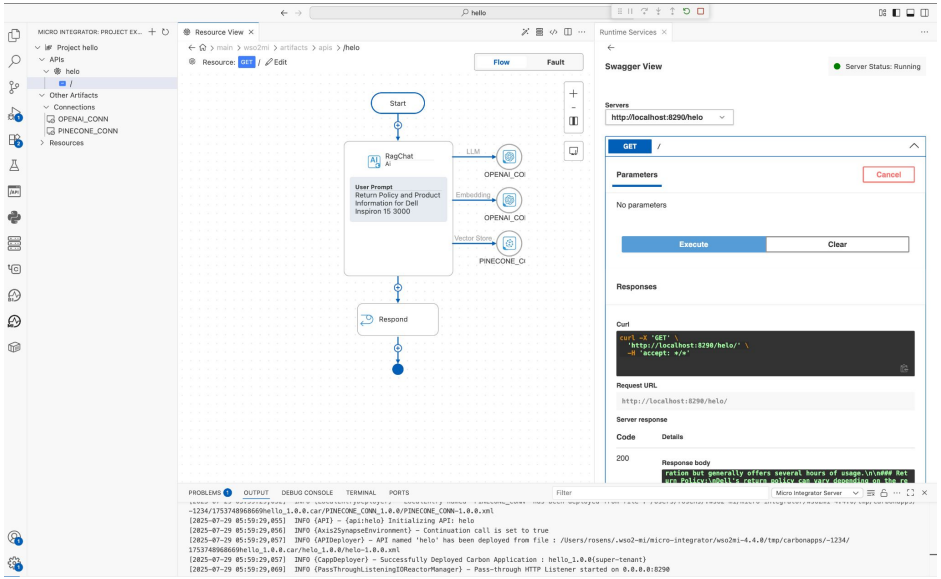
Key Features

- Built-in mediation engine (based on Apache Synapse).
- Supports SOAP, REST, JSON, JMS, RabbitMQ, Kafka, and more.
- Graphical and AI-assisted development tools via VS Code plugin.
- Hot deployment of integration artifacts.
- Built-in support for observability: logs, metrics, tracing



Developer Experience

- Develop using VS Code plugin with:
  - AI Copilot for integration generation.
  - Visual Data Mapper (generates TypeScript).
  - Swagger/OpenAPI support for scaffolding.
- Debug, run, and test directly from the IDE.



New WSO2 Integrator: MI 4.4.0

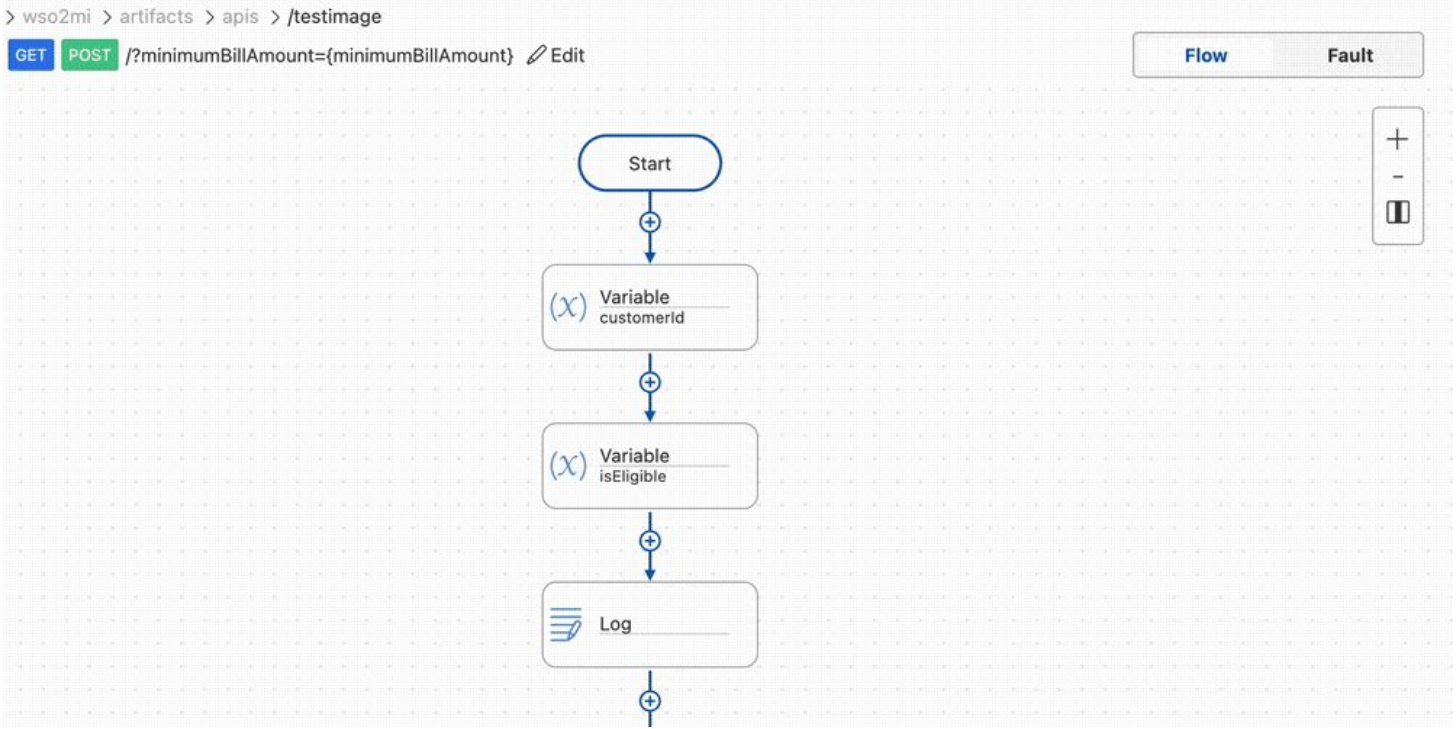
- WSO2 Synapse Expressions: Faster, Easier, Secure Integrations
- Ballerina Module for MI
- New and Improved MI Mediators
- Environment variable injection for all environment-specific parameters
- gRPC support



WSO2 Synapse Expressions: Faster, Easier, Secure Integrations

- Easy Payload and Variable Access
  - Example: **payload.user, vars.totalPrice**
- Quick Conditional Checks
  - Example: **vars.age > 18 ? 'Adult' : 'Child'**
- Filter Data Effortlessly
  - Example: **payload.orders[?(@.amount > 100)]**
- Built-in Useful Functions
  - Example: **toUpper('wso2'), round(123.456, 2)**
- Secure Secret Access
  - Example: **wso2-vault('db-password')**

New Expression Graphical Tooling Support



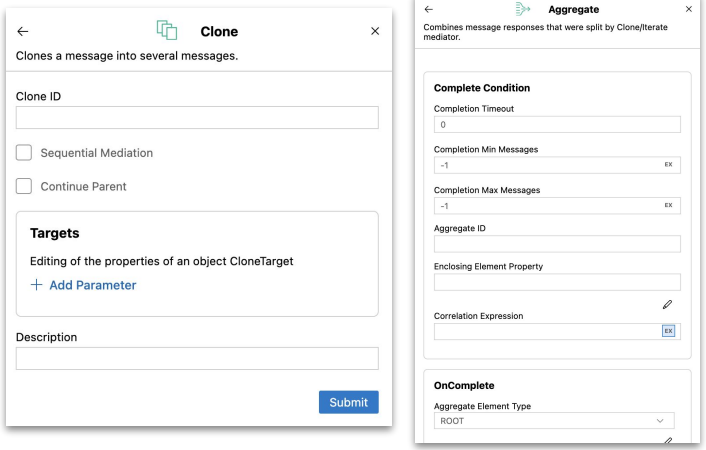
Ballerina Module for MI



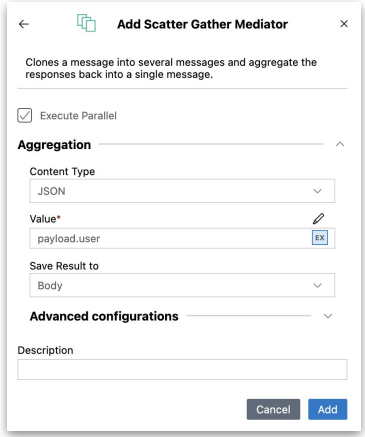
Enhancing WSO2 MI Mediators

- New Scatter Gather Mediator
  - Previously, users need to use two mediators(Clone and Aggregate).
  - Having a Call mediator in each clone path is a must.
  - Introduce a new single mediator while removing the Call mediator requirement.

Old



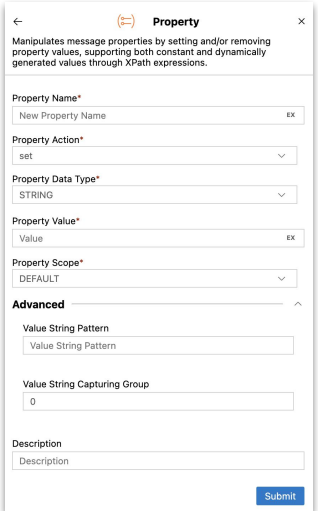
New



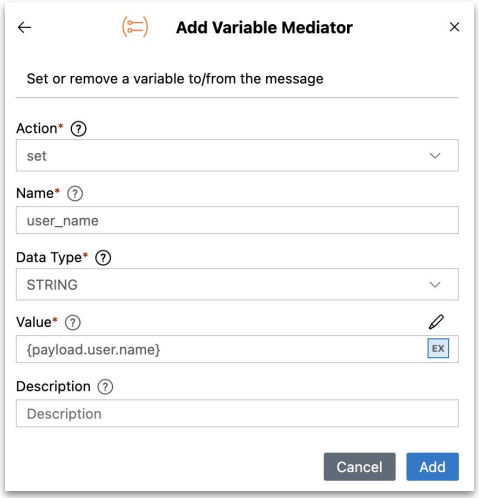
Enhancing WSO2 MI Mediators

- New Variable Mediator
  - Currently, we need to use the Property mediator to set variables.
  - Scopes and other configurations in Property mediator will lead to confusion for new users.

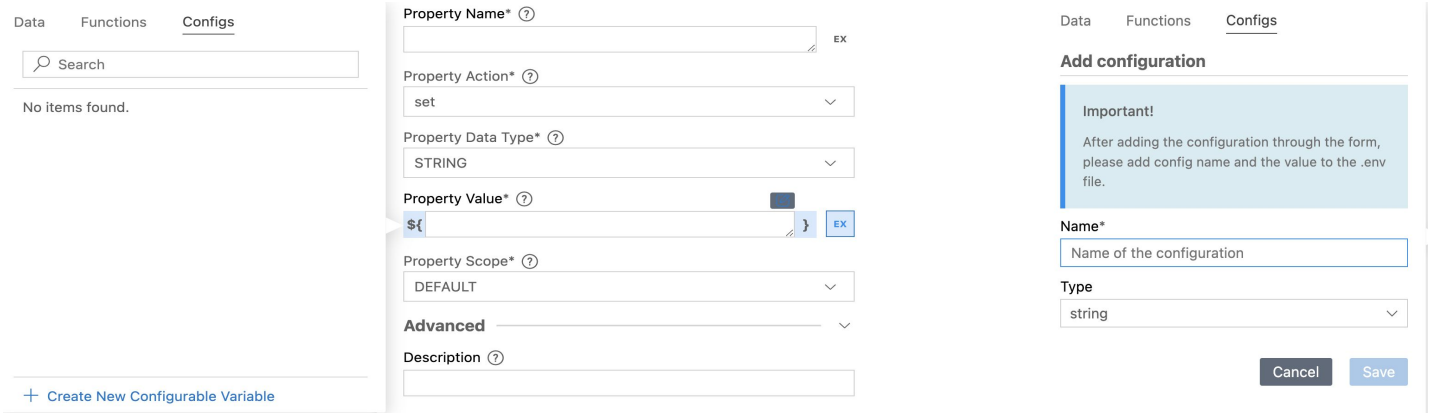
Old

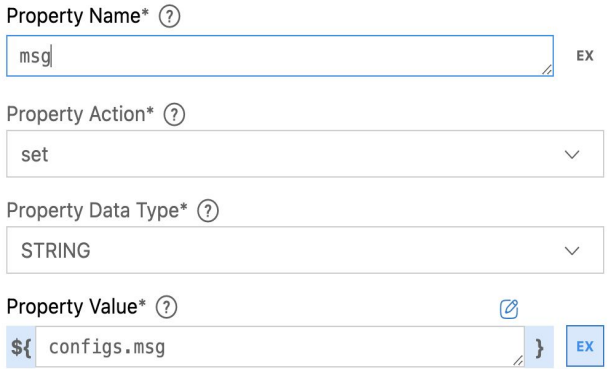


New



Environment variable injection for all environment-specific parameters

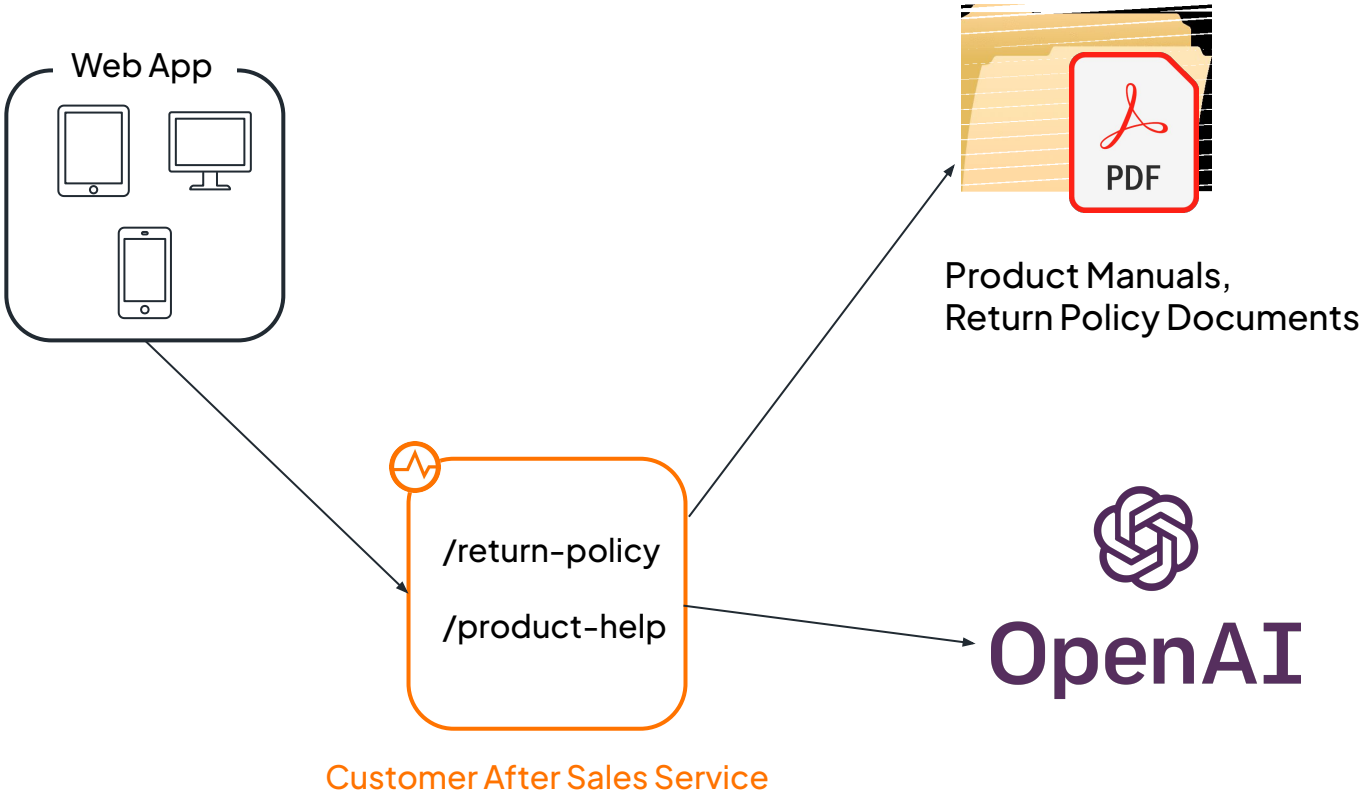




O2Mart Use Case



O2Mart Use Case



RAG Pattern

Introduction to the RAG Pattern

What is RAG?

- Retrieval-Augmented Generation (RAG) combines AI language models with external knowledge retrieval to generate precise answers.

Why RAG?

- Accuracy: Uses reliable external sources.
- Reduced Hallucinations: Minimizes incorrect AI-generated responses.
- Transparency: Responses traceable to source materials.

Introduction to the RAG Pattern

How RAG Works:

- User inputs a query.
- Relevant information retrieved from documents.
- AI combines retrieved data with the query.
- AI generates an accurate response.

Example Use Case:

- Customer support chatbot referencing FAQs or manuals for accurate responses.

RAG Data Ingestion from Devant

Question Time!




Thank you!
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