Integrating Magento with Adobe’s Experience Cloud
Integrations & Architecture

Customer Experience

Presentation Layer

Platform Solutions

Integration Layer

Commerce Engine

Fluid Experience Delivery

Adobe Sensei & Cloud Platform

Experience Cloud Open Services for Commerce

Magento®
Integration layer
Why an integration layer?

• A commerce integration is complex with multiple systems involved

• Customized systems require a customized integration

• Extension layer for process and business logic

• Leverages the power of Adobe’s services and solutions

• Standardized integration with Adobe solutions
Easily integrated, customized and adapted

Independent and composable

Simple and open Javascript model

Serverless, PaaS Elastic Scale

Microservices?
I/O Runtime
Adobe Specific Serverless
Core Foundation
OPENWHISK

Deployed on
ADOBE-SPECIFIC INFRASTRUCTURE
▷ Multi-cloud to be close to content & data anywhere it is stored within Adobe’s Cloud Platform

CUSTOM RUNTIME
to support Adobe-specific workflows
▷ Embedded SDKs for accessing Adobe APIs
▷ Custom languages like JSX or HTL
▷ Access to Adobe-specific information

ADOBE CREATED FUNCTIONS & BINARIES
deployed on Runtime for use by developers
▷ Authentication functions to help manage authorization workflows.
▷ Sensei algorithms deployed as functions through Sensei Functions
▷ Commerce Integration Framework functions for accessing and extending functionality.
▷ Functions for working with Content and Data Platforms.
Adobe I/O Console

The developer portal for accessing APIs, SDKs and developer tools like analytics and API key management.

Adobe I/O Events

Build event-driven integrations with Adobe products using webhooks.

Adobe I/O Runtime

A serverless platform to run custom code that extends Adobe Cloud Platform and services. Built on Apache OpenWhisk.

Triggers & Notifications

Adobe I/O Events

Build event-driven integrations with Adobe products using webhooks.

Extensibility

Adobe I/O Runtime

A serverless platform to run custom code that extends Adobe Cloud Platform and services. Built on Apache OpenWhisk.

Integrations

Adobe I/O Console

The developer portal for accessing APIs, SDKs and developer tools like analytics and API key management.

Expose

API Gateway

Powers over 300 Adobe services across the Adobe Cloud Platform to build on, integrate and extend Adobe products.
E2E Architecture

Clients: we.retail, SPA/PWA, In-store, 3rd Party, ...

Solutions: AEC

I/O Gateway: REST APIs, GraphQL, Cache, Events, Service Registry

I/O Runtime Platform: Microservice 1 (Action sequence), Microservice 2 (Action sequence), Microservice n (Action sequence)

Backend solutions: Magento

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I/O Runtime namespaces

- Customers get a namespace per environment
- An action sequence (microservice) contains 1:n actions
- Customer namespace contains custom actions or binds (= reference) pre-built actions from Adobe or partners via shared packages
- Each microservice domain, provided via a shared package, is versioned separately.
- Customers can bind a dedicated version or go with the latest released version (automatically)

= package binding

- Binding a pre-built action from public namespace
- Custom action (Code) in namespace
Extensibility model

1) Pre-built action sequence – No customization

2) Pre-built action sequence – with custom processing

3) Pre-built action sequence – with replacing pre-built actions

4) Custom action sequence – with pre-built and custom actions
CIF Requirements for Magento

• Magento 2.3 (GraphQL required)

• Extension installed: https://github.com/adobe/commerce-cif-magento-extension

• 'local' Sandbox / Dev instances need to be public accessible
CIF Summary

• Experience Cloud Open Services and XDM compatible: http://opensource.adobe.com/commerce-cif-api/

• V1 focus is on core B2C core services and objects

• Ghithubs
  • API: github.com/adobe/commerce-cif-api
  • Test-Kit: https://github.com/adobe/commerce-cif-testing-kit
  • Magento: https://github.com/adobe/commerce-cif-magento
Technical deep-dive
Why Commerce Integration Framework (CIF)?

• Accelerates a typical commerce integration
• Pre-built API mapping (connectors) with most commercial platforms
• Business layer – Extend connectors with business logic & rules
• Reflects best practice and recommended patterns
• Abstraction layer – Allows to develop a commerce-solution agnostic experience
• Adobe Experience MangaWe.retail template with commerce components
• Product data and catalog management tools.
• Production-ready integrations
Magento CIF Stack

- Apache OpenWhisk: The main building blocks of the new commerce services are serverless functions (OpenWhisk actions).

- Integration is based on microservices that are easy to use, extend and maintain.

- These actions run on Adobe I/O Runtime inside an isolated container, stateless and serverless interacting with the commerce backend system.

- Runs on Adobe I/O Runtime (PaaS) and automatically scales.

- Standardized data schemas and defined APIs (https://github.com/adobe/commerce-cif-api)

- Exposes commerce services and data to the Adobe ecosystem.

- Production-ready integrations to many commercial commerce platforms available.
Service Orchestration

- Packages are used to manage logical groups of actions. Customers use predefined actions from Adobe or partners via shared packages. A package is our representation of a ‘microservice domain’
Versioning

- Each microservice domain, provided via a shared package, is versioned separately. CIF versioning uses JavaScript / NPM version schema.