



DEVELOPERS LIVE

Content & Commerce with Adobe Experience Manager as a Cloud Service

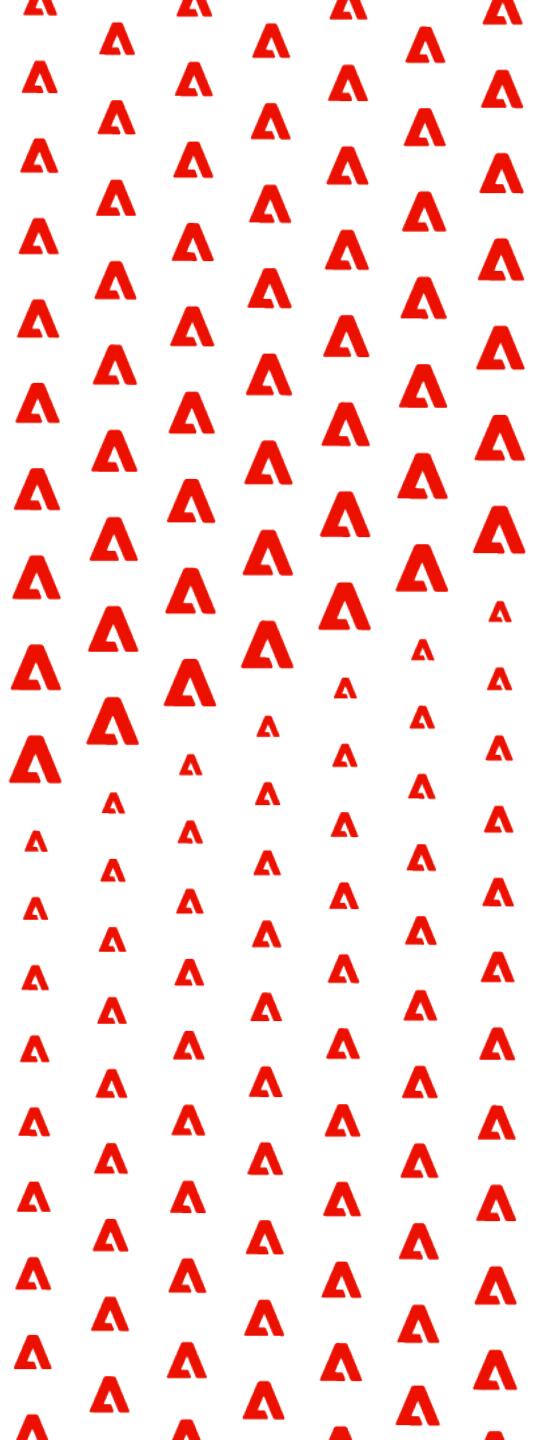
Markus Haack

About Me



Markus Haack
Tech Lead AEM Commerce

 @mhaack



Agenda



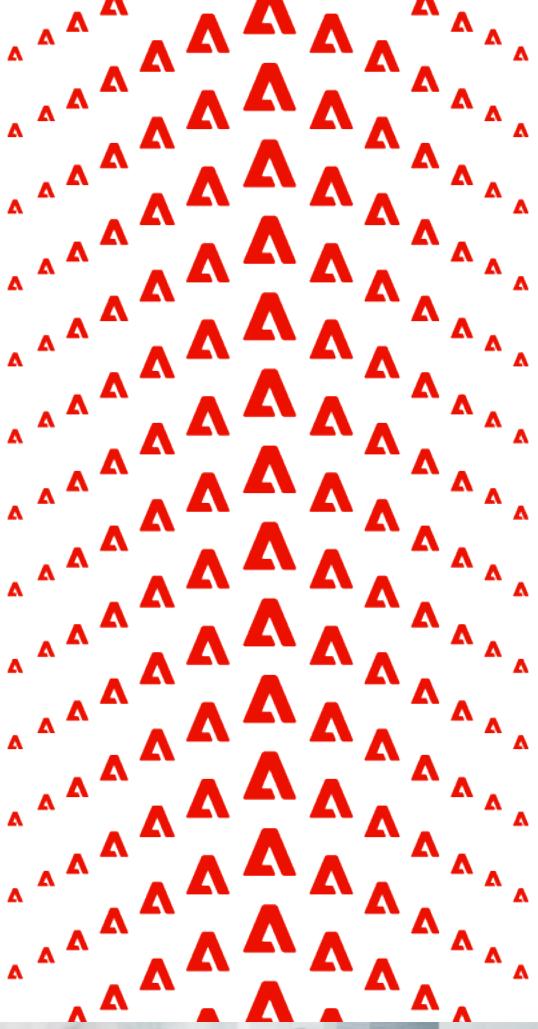
Intro to AEM
Content &
Commerce



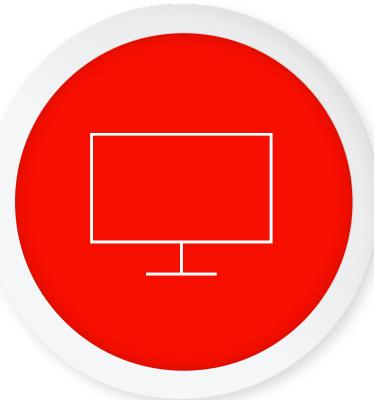
AEM Commerce as
a Cloud Service



AEM Commerce
Local Development



Adobe Experience Manager Content and Commerce



Adobe Experience Manager

A powerhouse combo of Content and Digital Asset Management for exceptional commerce experience creation and delivery



Adobe Commerce Integration Framework (CIF)

Connecting commerce engines with AEM to provide a seamless content and commerce authoring experience with live product context

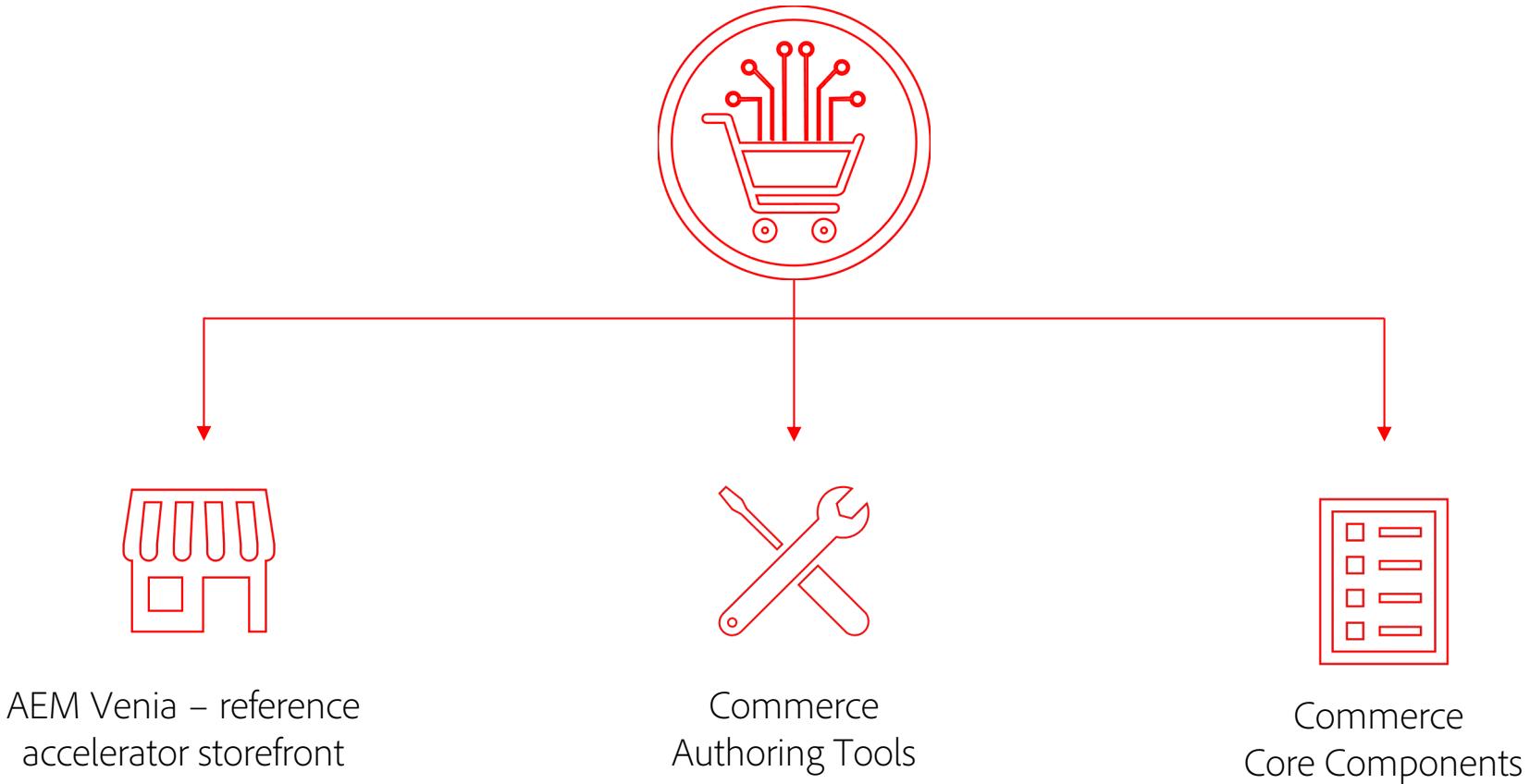


Commerce Engines

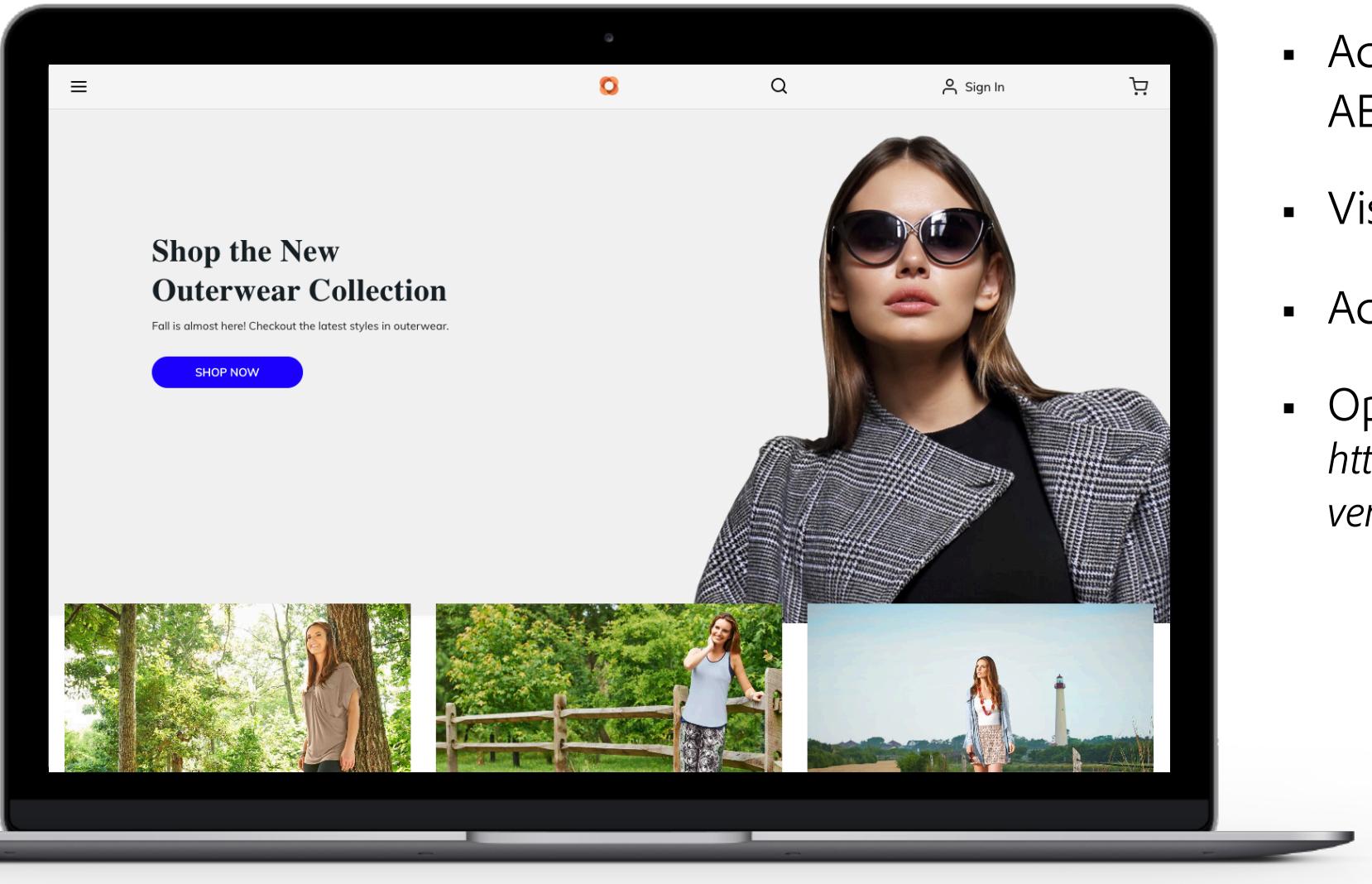
Supporting commerce engine integration from Magento Commerce to any commerce engine(s)



Commerce Integration Framework building blocks

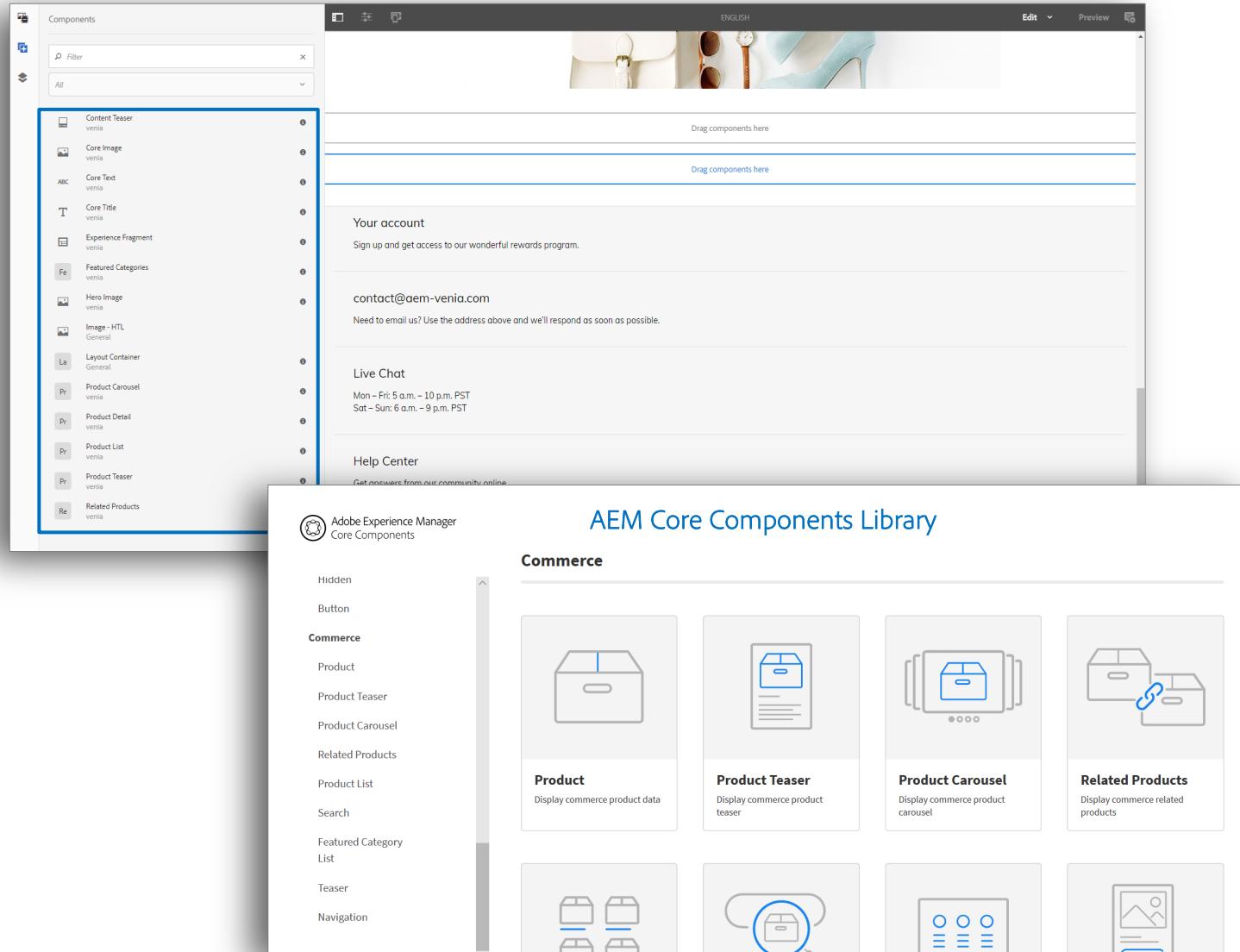


Production-ready AEM Venia Reference Storefront



- Accelerate storefront development on AEM
- Visualize typical B2C experience
- Achieved with CIF Core Components
- Open-source:
<https://github.com/adobe/aem-cif-guides-venia>

Commerce Core Components



The screenshot shows the Adobe Experience Manager (AEM) authoring interface. On the left, a sidebar titled "Components" lists various AEM components, with the "Commerce" category expanded. A sub-section under "Commerce" is highlighted with a blue border, showing components like "Product", "Product Teaser", "Product Carousel", and "Related Products". The main workspace shows a page with a hero image and two "Drag components here" slots. Below the slots, there are sections for "Your account", "contact@aem-venia.com", "Live Chat", and "Help Center". At the bottom of the page, there's a link to "Get answers from our community online". A modal window titled "AEM Core Components Library" is open at the bottom, displaying the "Commerce" section with icons and descriptions for each component.

AEM Core Components Library

Commerce

- Product
- Product Teaser
- Product Carousel
- Related Products
- Product List
- Search
- Featured Category List
- Teaser
- Navigation

Product

Product Teaser

Product Carousel

Related Products

- Commerce Core Components are part of AEM Components Library
- Reduce the need for custom code and help accelerate time to market
- Building blocks that can be easily extended by developers to build a flexible foundation for future optimizations
- Configurable with easy drag & drop functionality for marketers to create experience pages with content and commerce
- Internationalization support for all components

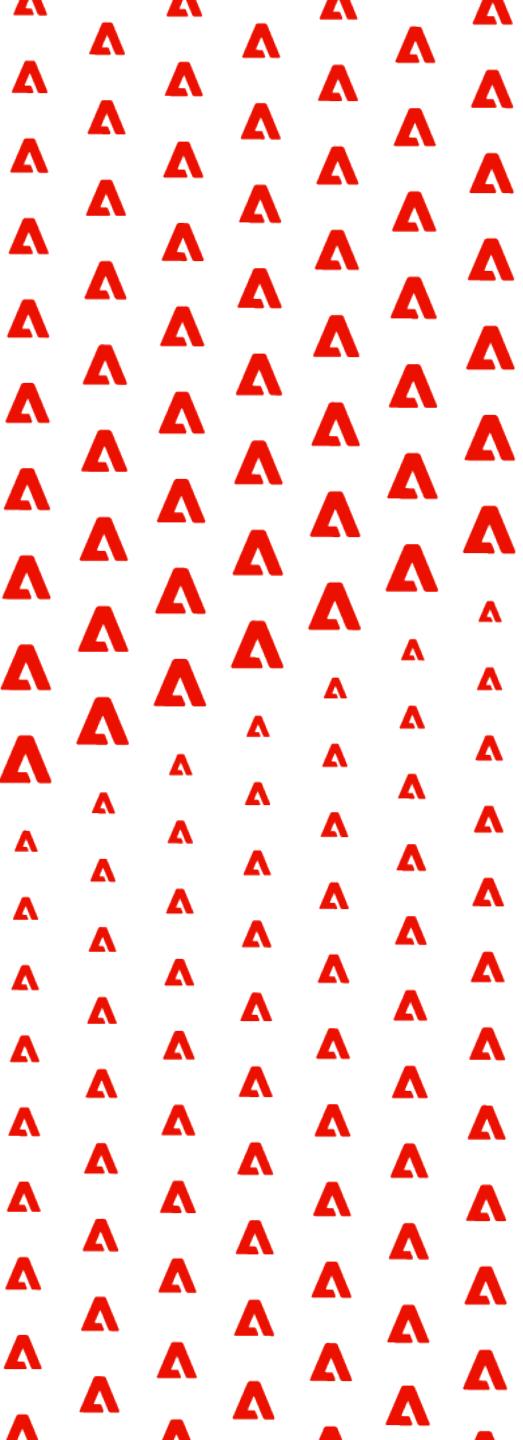
Commerce Authoring | Bring product context into AEM

The screenshot displays the AEM Commerce Authoring interface. On the left, a search results panel shows four cardigan products: Juno Sweater (VSW02), Rosalina Cardigan (VSW04), Hanna Sweater (VSW05), and Brigid Boucle Cardigan (VSW07). Below these are three more cardigan products. In the center, a navigation tree under 'magento-graphql' shows categories like Shop The Look, Accessories, Bottoms, Dresses, Tops, Blouses & Shirts, and Sweaters, with 'Sweaters' currently selected. To the right, an 'Assets' panel lists various jewelry items: Carmina Earrings (VA11-GO-NA), Augusta Earrings (VA12-SI-NA), Carmina Neckla... (VA13-GO-NA), Augusta Necklace (VA14-SI-NA), Silver Sol Earring... (VA15-SI-NA), Gold Sol Earrings (VA16-GO-NA), and two small circular icons at the bottom.

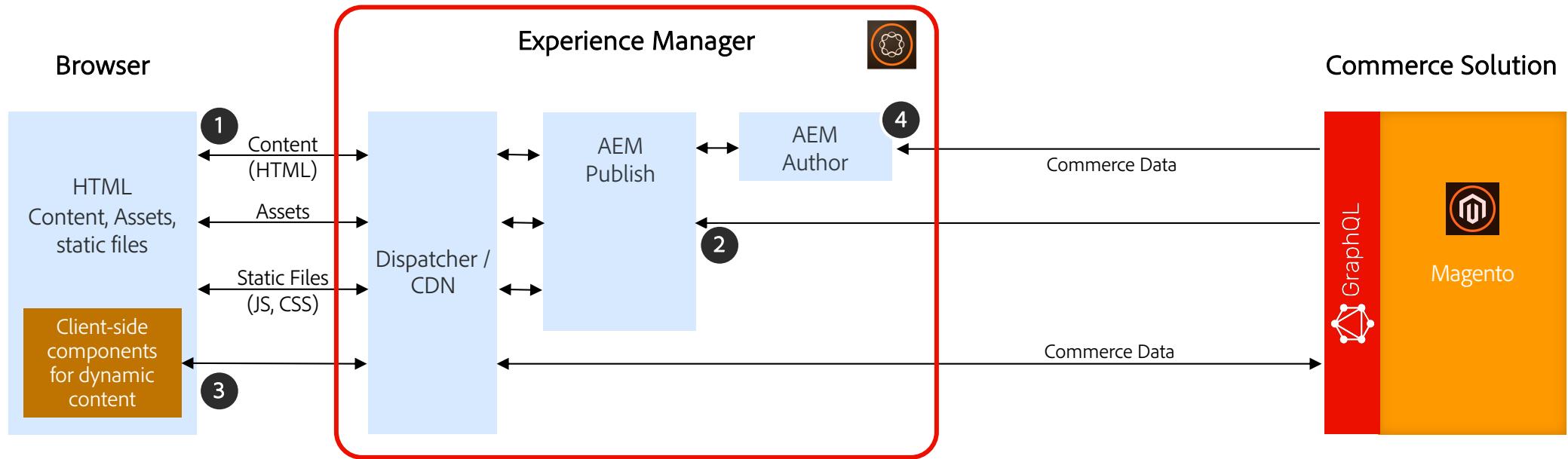
Marketers can use out of the box authoring tools such as product / category pickers to bring commerce context into experience pages and to associate products with marketing assets

AEM Commerce as a Cloud Service

Architecture

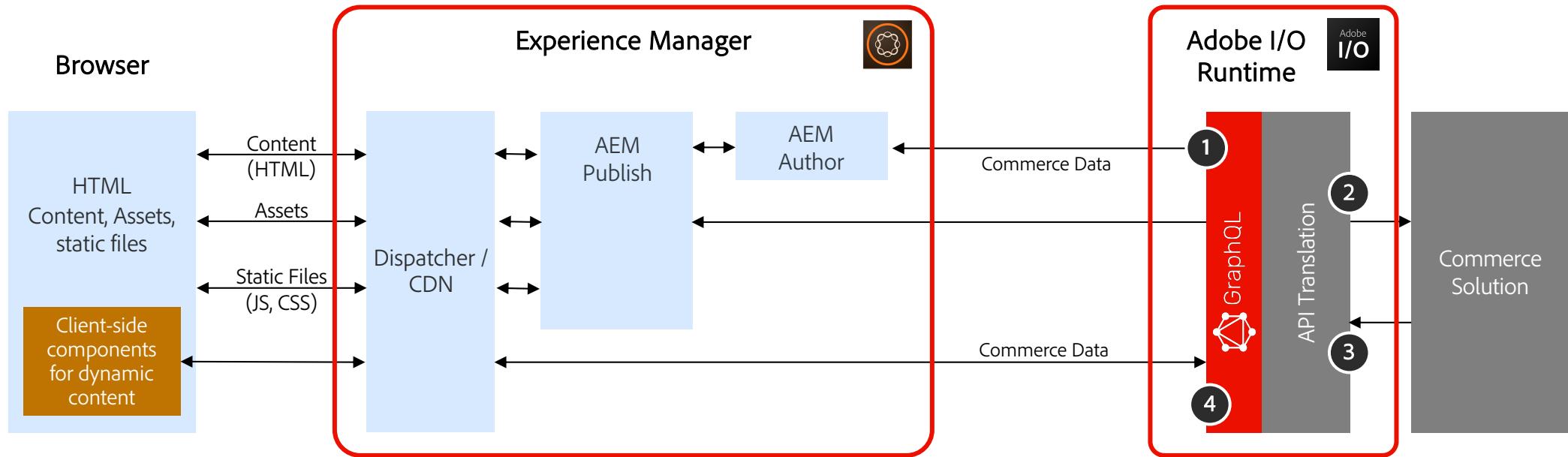


Today's AEM commerce high level architecture | Magento



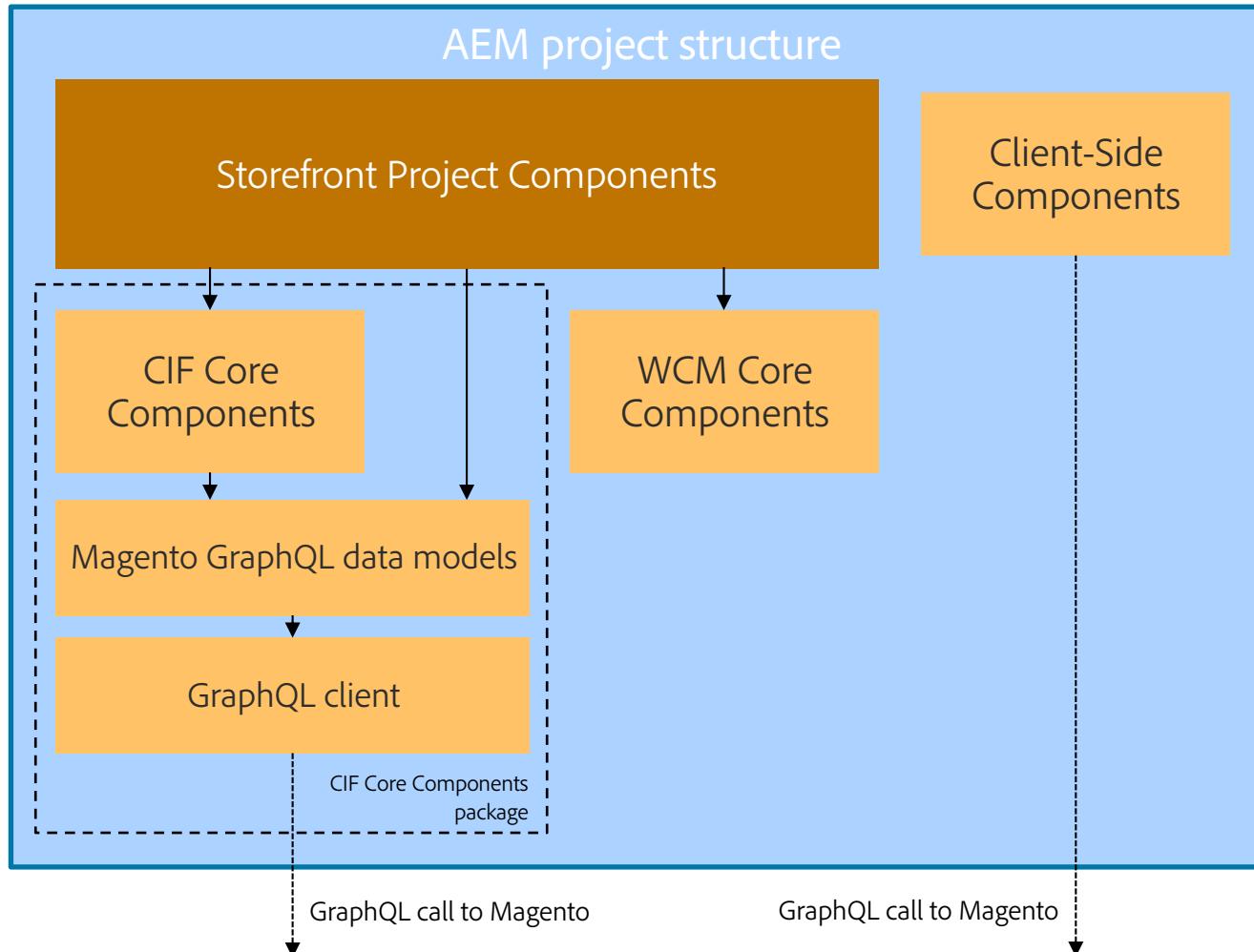
1. Browser requests page, assets and static files from AEM Publish via Dispatcher / CDN
2. AEM Publish requests commerce data to render shopping experiences
3. Client-side components exchange non-cacheable data and render experience with Magento
4. AEM Author integrates staged and live product data for authoring tools

Today's AEM commerce high level architecture | 3rd party commerce



- 1: GraphQL API endpoint provided via on Adobe I/O Runtime or custom alternative.
- 2: GraphQL resolver will invoke I/O Runtime actions for request mapping.
- 3: API response from commerce will be transformed into common GraphQL schema.
- 4: GraphQL object hierarchy aggregated and send back to client.

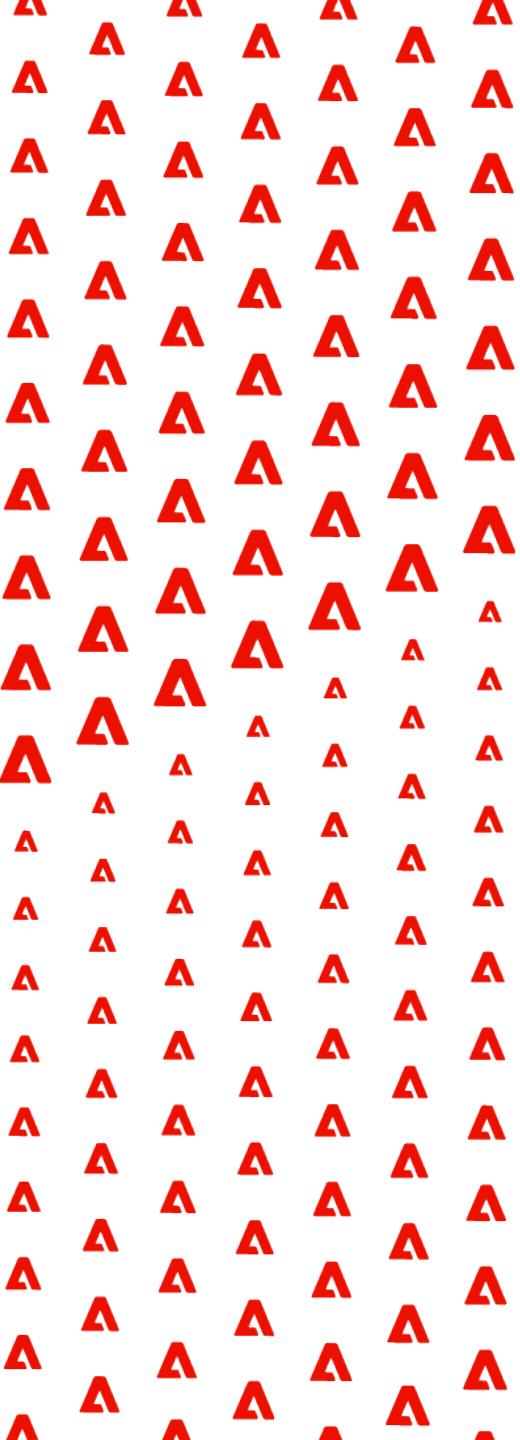
Commerce Core Components



- CIF Core Components are used as part of the customer project
- Embedded in our production-ready AEM Venia Reference Storefront
- Customer components will overlay CIF Core Components, similar like AEM WCM Core Components
- Core Components have data layer support build in
- Magento GraphQL models and GraphQL client are OSGI bundles, embedded in the CIF Core Components package

AEM Commerce as a Cloud Service

Start your engines



AEM & Commerce – Ready to start the project?

1

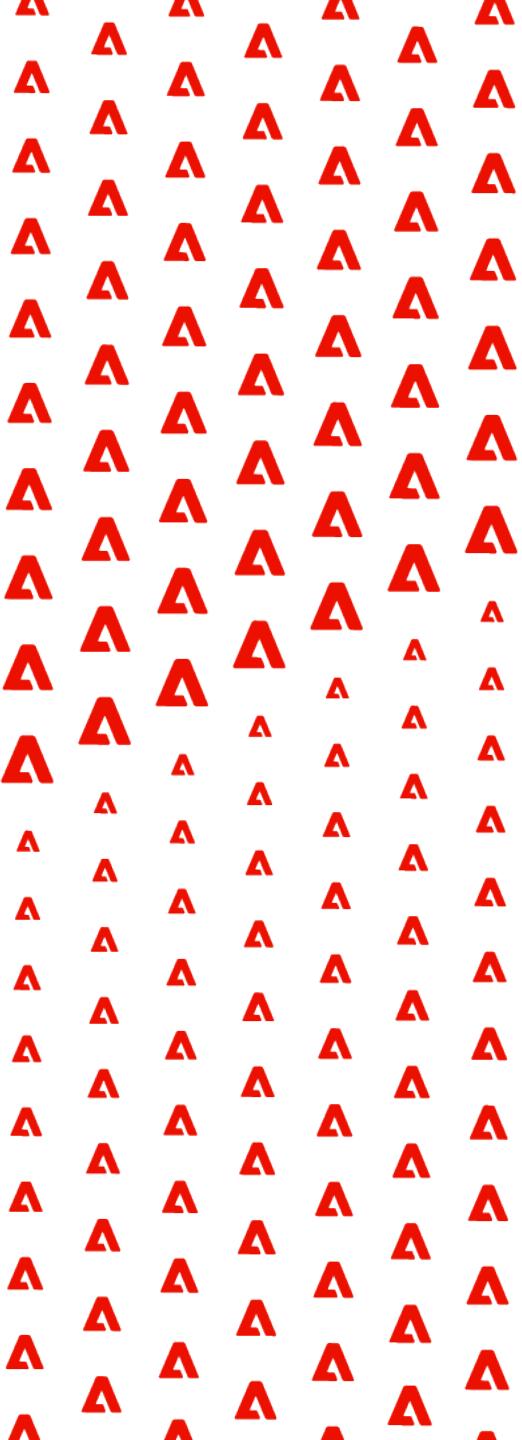
Onboarding to AEM Commerce

2

Connect to Commerce Solution

3

Deploy project code via Cloud Manager



Onboarding

Onboarding for AEM Commerce as a Cloud Service in two steps only

1



Entitlement & Provisioning

AEM Sites + AEM
Commerce add-on

2

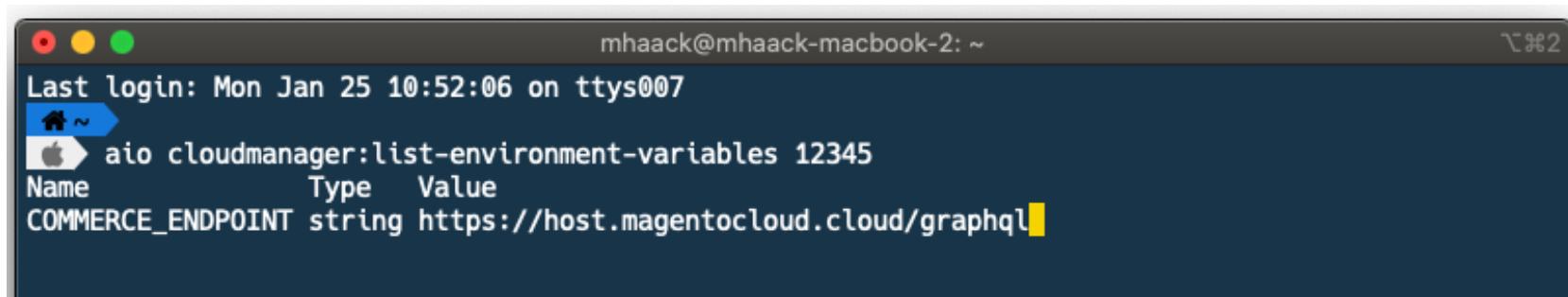


Self-service configuration

Connect AEM Commerce
with your Commerce system

Connect AEM & Commerce

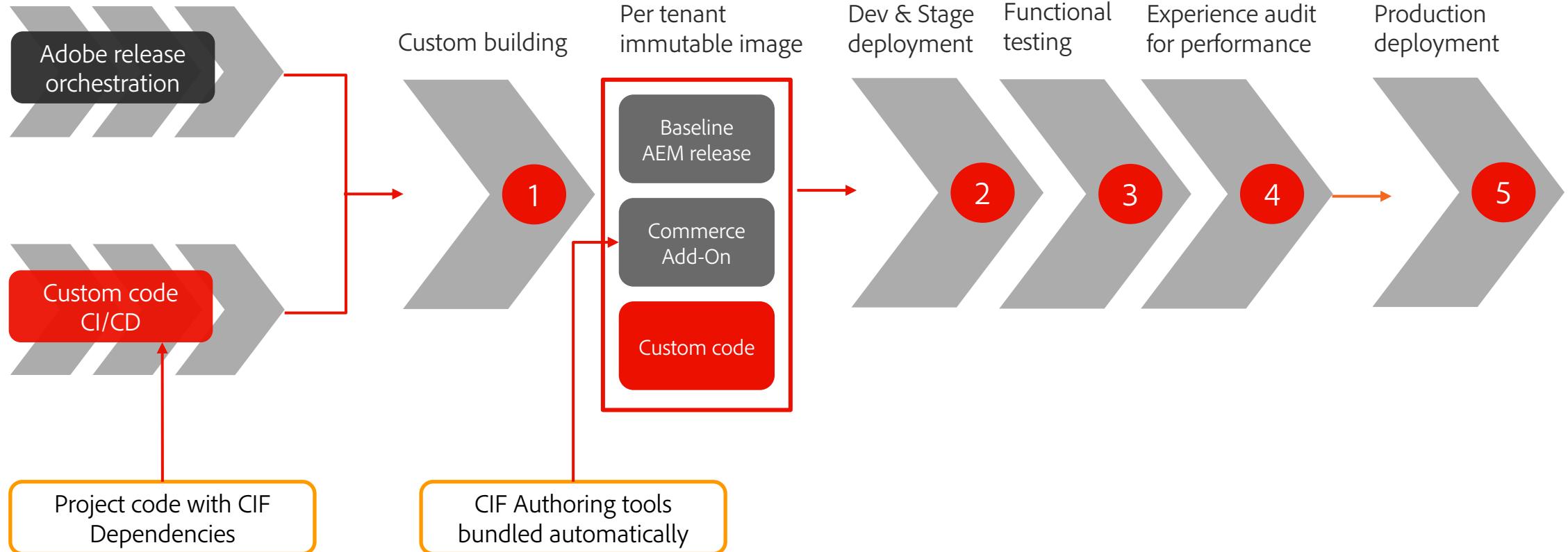
- Connect AEM to commerce system using AEM Cloud Service environment variables*
- Manage via Cloud Manager CLI tool
 - Adobe I/O CLI + Cloud Manager CLI plugin
 - Follow readme to setup authentication with Adobe I/O
- For AEM Commerce > only 1 environment variable **COMMERCE_ENDPOINT** required
- Optional Magento API token for preview and staged data access (requires Magento \geq 2.4.2)



```
mhaack@mhaack-macbook-2: ~
Last login: Mon Jan 25 10:52:06 on ttys007
aio cloudmanager:list-environment-variables 12345
Name      Type  Value
COMMERCE_ENDPOINT string https://host.magentocloud.cloud/graphql
```

* See <https://experienceleague.adobe.com/docs/experience-manager-cloud-service/commerce/getting-started.html>

One CI/CD pipeline for delivering exceptional experiences



Get your project ready

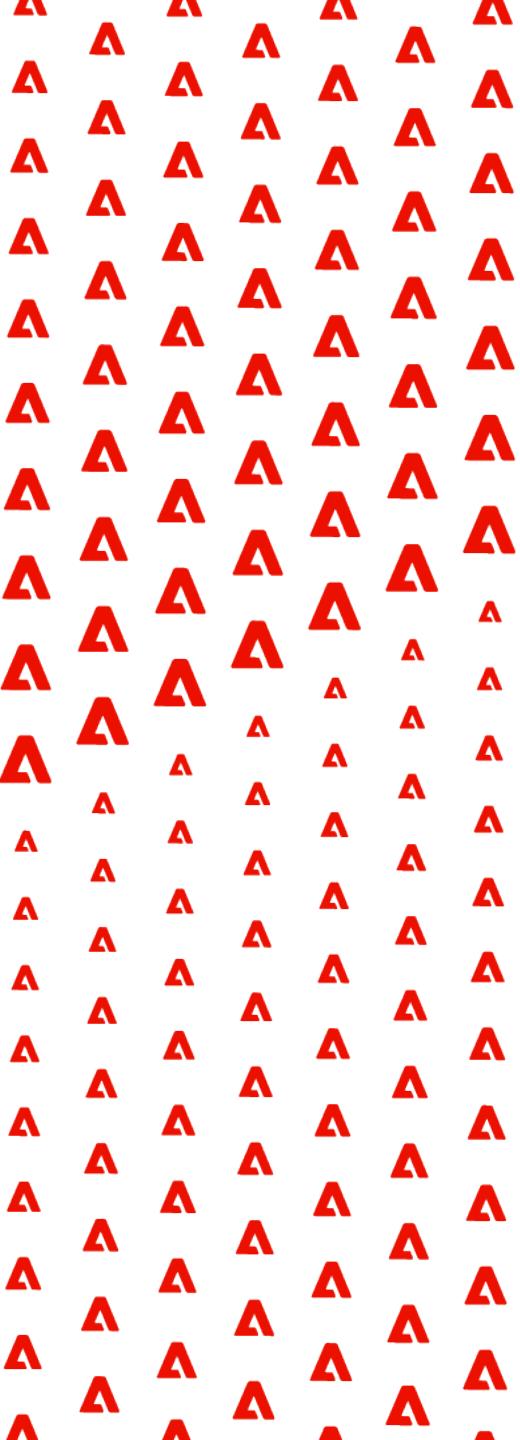
- 3 ways to start: AEM Archetype or Venia Reference or manually add CIF dependencies
- Push to Cloud Manager Git repo and trigger manually or on git push
- Check CM image build logs for “Feature Archive Tool” and “CIF” messages

```
vi ~/Downloads/buildImage_buildImage.log
-----
Feature Archive Tool
-----
Local maven directory : /root/.m2/repository
Source directory      : /tmp/src/main/features
Processing add-on cif
Reading feature archive from https://cifonskyline.blob.core.windows.net/cif-skyline-artifacts/2020
.12.01/cif-cloud-ready-feature-pkg-2020.12.01-cq-commerce-addon-authorfar.far?se=2021-12-01T12%3A1
7%3A21Z&sp=r&spr=https&sv=2018-11-09&sr=b&sig=fY0flHs4drqUdCiMSnq%2BCr0lrvYdogxYpRm3Y7GcG0%3D
Writing file com.adobe.cq:cq-commerce-addon-bundle:2020.12.01
Writing file com.adobe.commerce.cif:graphql-client:1.7.0
Writing file com.adobe.cq:cq-commerce-addon-application:zip:2020.12.01
Writing file com.adobe.cq:cq-commerce-addon-configuration:zip:2020.12.01
Writing feature com.adobe.cq:cq-commerce-addon-cif:cif-cloud-ready-feature:cq-commerce-addon-a
uthor:2020.12.01
Reading feature archive from https://cifonskyline.blob.core.windows.net/cif-skyline-artifacts/2020
.12.01/cif-cloud-ready-feature-pkg-2020.12.01-cq-commerce-addon-publishfar.far?se=2021-12-01T12%3A
17%3A21Z&sp=r&spr=https&sv=2018-11-09&sr=b&sig=chxL7b4fADYD9cG93etE/B%2BC732lYogSwolsFLBpS2s%3D
Writing feature com.adobe.cq:cq-commerce-addon-cif:cif-cloud-ready-feature:cq-commerce-addon-pu
blish:2020.12.01
Removing intermediate container 676079376f22
---> e30b0da3a022
Step 44/69 : RUN echo endAddonFeatureArchive=`date +%s` >> /tmp/build-stats.txt
---> Running in cfc094b7e7ad
Removing intermediate container cfc094b7e7ad
```

The screenshot shows the Adobe Experience Manager Cloud Manager interface. At the top, it says "Welcome to Cloud Manager". Below that, there's a section titled "Deploy your Application" with a "Deploy" button and a "Learn More" link. To the right, there are sections for "Available Environments" (listing "www.global-image" and "www.globalprod" both in green), "Pipeline Settings" (with a search bar and a "Manual" deployment mode), and "Testing" (with a "3 tests passed" status). At the bottom, there are three informational cards: "Getting started with Cloud Manager", "Good to know", and "Introduction to quality-driven deployments". The "Good to know" card includes a note about Cloud Manager supporting business KPIs for deployment options.

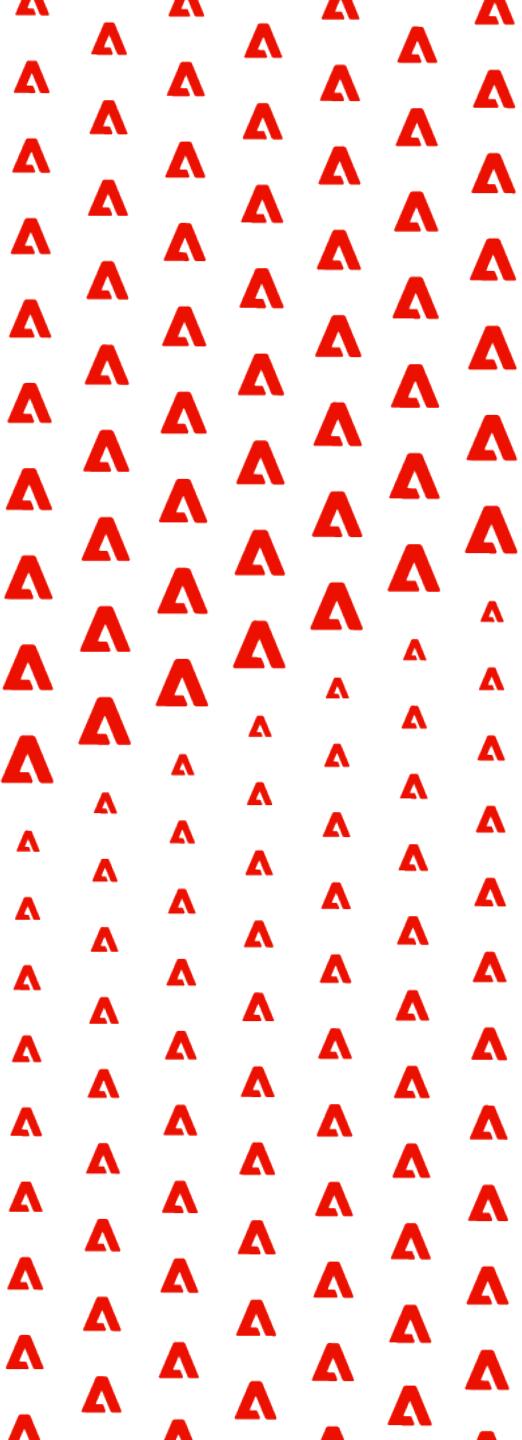
AEM Commerce as a Cloud Service

Local development setup



AEM & Commerce – Ready to start the project?

- 1 Get AEM Cloud SDK & CIF Add-On
- 2 Connect to Magento 2.3.5 or Magento 2.4
- 3 Deploy Venia reference project or start from AEM Archetype



Local development environment setup

- 1  Get AEM SDK + CIF Add-On
- 2  Magento
- 3  Install add-on
- 4  Link the catalog
- 5  Deploy the project

AEM SDK v2021.1.4794.20210121T150042Z-201217

[Details](#) [EULA](#)

Description AEM SDK for AEM v2021.1.4794.20210121T150042Z-201217 includes Quickstart Jar, Dispatcher Tools 2.0.37 for Unix, and Dispatcher Tools 2.0.37 for Windows

Product AEM

Package type Tooling

File type application/zip

Provider Adobe

Size 415.3 MB

Accept EULA Terms



AEM CIF Add-On v2020.12.01

[Details](#) [EULA](#)

Description AEM CIF Add-on v2020.12.01 includes feature archive files for author and publish instances.

Product AEM

Package type Tooling

File type application/zip

Provider Adobe

Size 153.7 kB

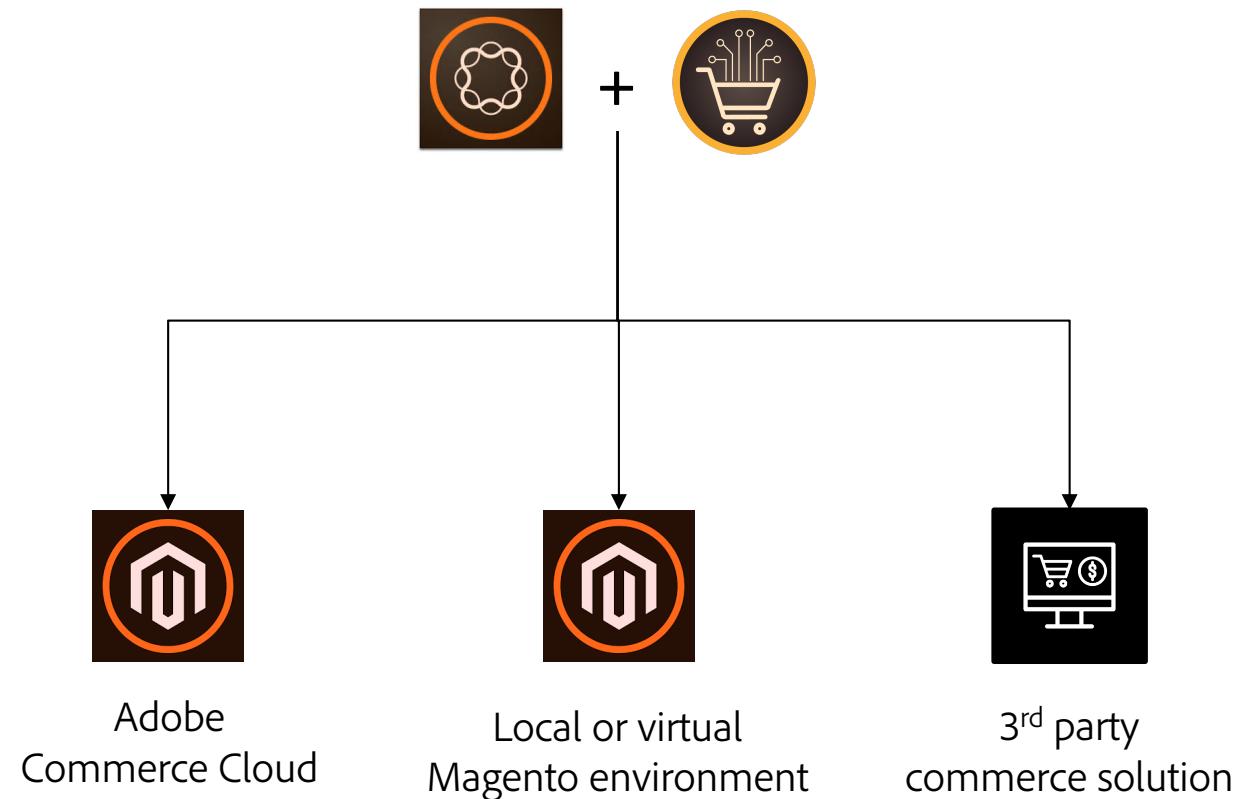
Accept EULA Terms

[Cancel](#) [Share](#) [Download](#)

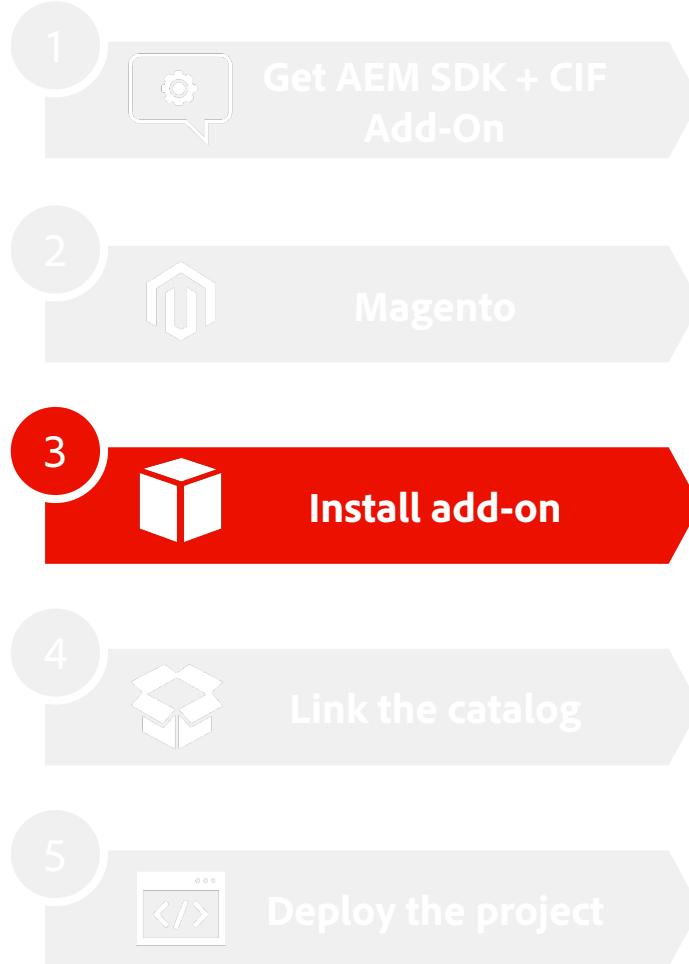


Adobe Software Download: <https://experience.adobe.com/#/downloads/content/software-distribution/en/aemcloud.html>

Local development environment setup



Local development environment setup

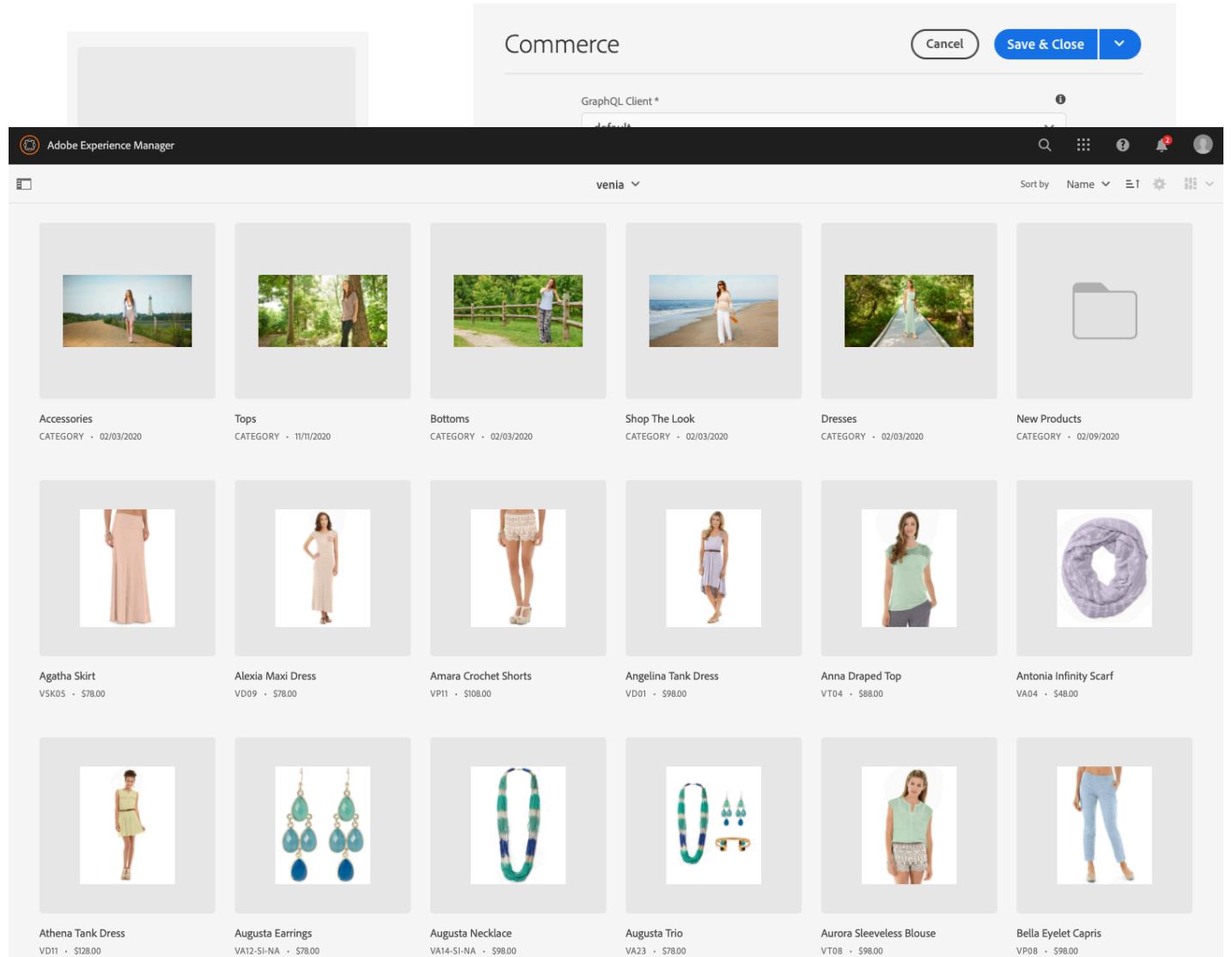
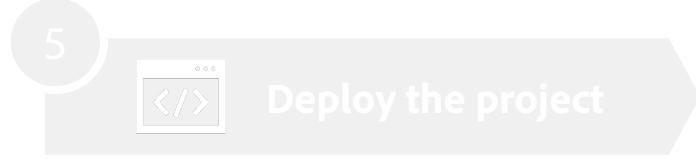
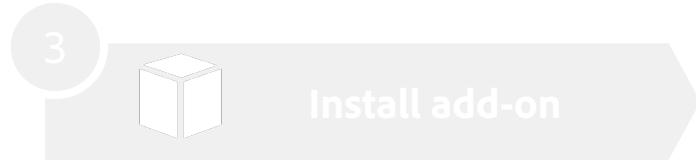
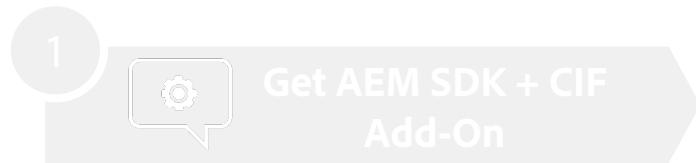


- Unpack the AEM .jar `java -jar <jar name> -unpack`
- Unpack the CIF add-on .zip
- Copy feature archive .far file to crx-quickstart/install
 - Use the correct one for AEM Author or AEM Publish
- Create a local OS environment variable named **COMMERCE_ENDPOINT**

Mac OSX: `export COMMERCE_ENDPOINT=https://demo.magentosite.cloud/graphql`

Windows: `set COMMERCE_ENDPOINT=https://demo.magentosite.cloud/graphql`
- Start the AEM SDK

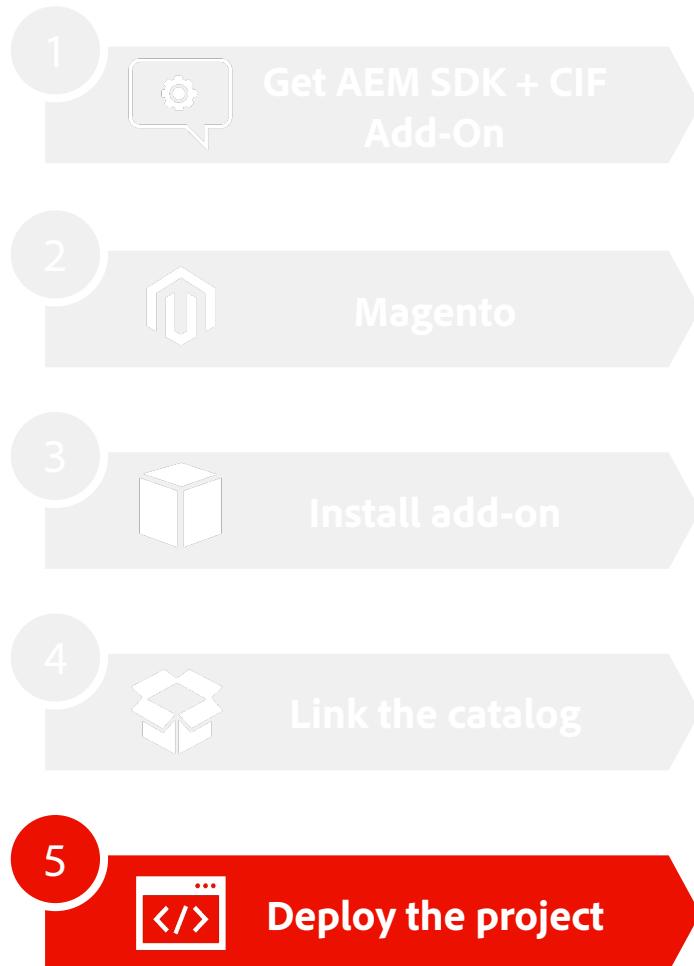
Local development environment setup



The screenshot shows the Adobe Experience Manager (AEM) Commerce interface. At the top, there is a navigation bar with the AEM logo, the word "Commerce", and buttons for "Cancel", "Save & Close", and a dropdown menu. Below the navigation bar, there is a search bar and a toolbar with various icons. The main content area displays a grid of product cards. Each card contains a thumbnail image, the product name, and its category and price. The products include various items such as skirts, dresses, shorts, tops, and accessories.

Category	Product Name	Category	Price
Accessories	Agatha Skirt	Tops	\$78.00
Bottoms	Alexia Maxi Dress	Crochet Shorts	\$108.00
Shop The Look	Amara Crochet Shorts	Angelina Tank Dress	\$98.00
Dresses	Angelina Tank Dress	Anna Draped Top	\$88.00
New Products	Antonia Infinity Scarf		\$48.00
	Athena Tank Dress	Augusta Earrings	\$78.00
	Augusta Necklace	Augusta Trio	\$98.00
	Aurora Sleeveless Blouse	Bella Eyelet Capris	\$98.00

Local development environment setup



- Project setup
 - Get AEM Venia reference project from GitHub
 - Alternative build new empty project from AEM Archetype
 - Existing project: add CIF dependencies

```
<dependency>
    <groupId>com.adobe.commerce.cif</groupId>
    <artifactId>core-cif-components-all</artifactId>
    <type>zip</type>
    <version>x.y.z</version>
</dependency>
```

- Install via Maven, like any other AEM project

```
mvn clean install -PautoInstallSinglePackage
```

Resources

Documentation

- AEM Commerce as a Cloud Service docs: <https://experienceleague.adobe.com/docs/experience-manager-cloud-service/commerce/home.html>
- Getting started with AEM Commerce as a Cloud Service: <https://experienceleague.adobe.com/docs/experience-manager-cloud-service/commerce/getting-started.html>
- Core Components Library: <https://www.aemcomponents.dev/>

GitHub Repositories:

- Commerce Core Components: <https://github.com/adobe/aem-core-cif-components>
- AEM Venia Reference Storefront: <https://github.com/adobe/aem-cif-guides-venia>
- AEM Project Archetype: <https://docs.adobe.com/content/help/en/experience-manager-core-components/using/developing/archetype/overview.html>

Support forum

- Experience League Community: <https://experienceleaguecommunities.adobe.com/t5/adobe-experience-manager/ct-p/adobe-experience-manager-community>

