Adobe

SECURITY OVERVIEW

Adobe Experience Manager Sites Optimizer

March 2026

About Adobe Experience Manager (AEM) Sites Optimizer

Leveraging generative AI and real-time performance monitoring, AEM Sites Optimizer is a cloud-based service that continuously collects and analyzes data to detect opportunities for improvement in websites deployed using AEM as a Cloud Service or AEM Sites. The solution provides customers with recommendations to improve underperforming pages, reduce accessibility gaps, and increase policy enforcement prioritized based on potential business impact. Using AEM Sites Optimizer, customers can create a smooth and reliable online experience, which helps maintain engagement and conversion. For more information about AEM Sites Optimizer, see Experience League.

AEM Sites Optimizer components

AEM Sites Optimizer includes the following key components:

- **AEM Sites Optimizer User Interface** – Enables marketing managers or web product owners to review, approve, and track suggested optimizations to their AEM deployment, including:

- **Opportunities and Reports** – Surface aggregated insights, trends and prioritized recommendations to improve SEO, performance, and overall site quality.

- **Preflight** – Allows authors to run automated checks before publishing pages that helps catch SEO, metadata, and accessibility issues before production, improving content quality before it goes live.

- **Settings** – Enable customers to configure domains, integrations (such as Google Search Console), and system preferences that facilitate accurate data collection and meaningful optimization insights.

- **AEM Sites Optimizer Core Agent** – Identifies actionable improvement areas across websites and drives measurable performance gains. Primary skills Include:

    - **Site Health and Performance Analysis** – Identifies opportunities across site health, accessibility, traffic acquisition, engagement, and conversion.

    - **Layout and UX Enhancement** – Recommends improvements to website user experience and layout with a focus on accessibility, engagement, and conversion.

    - **Content Strategy and Variation Generation** – Proposes audience-tailored website content variations aligned to tone guidelines and SEO goals.

    - **Data-Driven Optimization Recommendations** – Generates optimization suggestions using inputs from AI agents, performance data, site content, markup, and implementation details.

- **Core Platform Services** – Support data retrieval, optimization, and analysis through the following services:
  - **Data Retrieval Service** – Scrapes customer's public sites and imports web performance and analytics metrics for further analysis.
  - **Data Analysis Service** – Compiles telemetry, optimization outcomes, and performance data to generate actionable reports and success stories.
  - **Opportunity Detection Service** – Analyzes data from different data sources to identify potential optimization opportunities.
  - **Optimization and Fix Service** – Applies pre-approved optimizations to the site automatically, reducing manual effort and accelerating implementation.
- **AEM Sites Optimizer Data Store** – Stores metadata, user preferences, intermediate aggregate results, and generated suggestions within AEM Sites Optimizer.

Accessing AEM Sites Optimizer

To enable users to access AEM Sites Optimizer, the customer's Adobe Administrator must grant access to the requisite AEM product profile in the Adobe Admin Console. More information is available on Experience League. AEM Sites Optimizer leverages Adobe Identity Management Services (IMS) to manage user access and authentication.

Data encryption

- **In Transit** – All data is encrypted in transit over HTTPS using TLS 1.2 or greater.
- **At Rest** – Any data stored by AEM Sites Optimizer is encrypted at rest using AES-256-bit encryption.

AEM Sites Optimizer security architecture and data flow narrative

The diagram below illustrates how data typically flows in AEM Sites Optimizer:

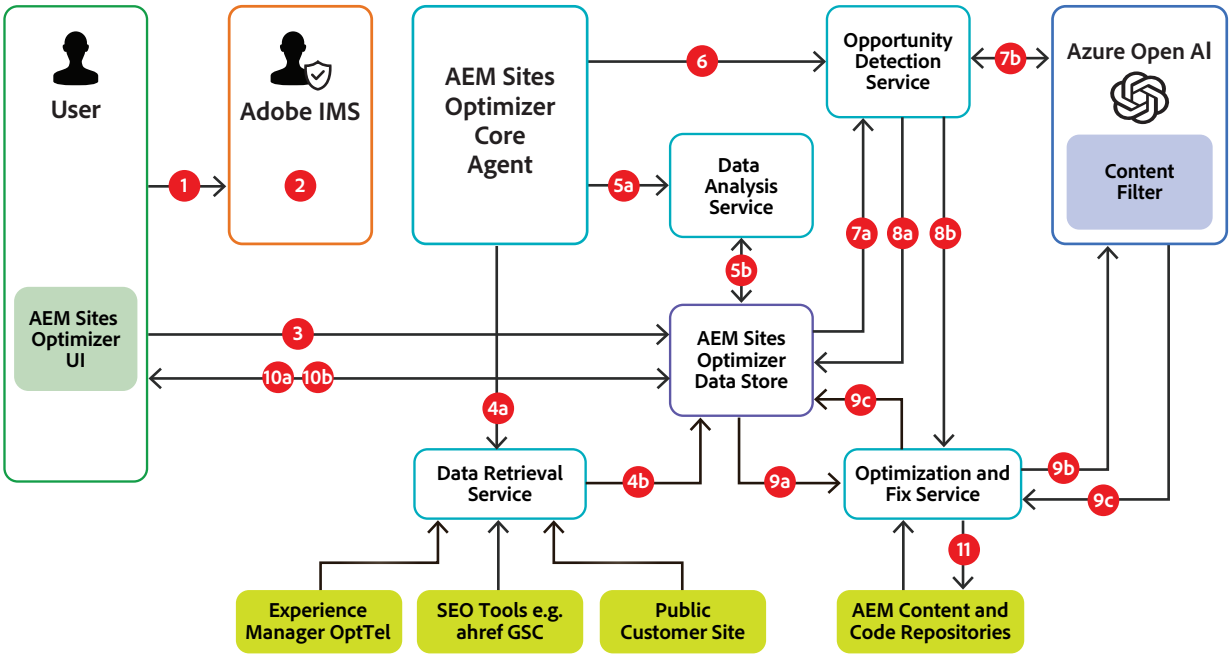

Figure 1: AEM Sites Optimizer data flow diagram

Data flow narrative

Step 1: The user opens AEM Sites Optimizer in the AEM Experience Hub and logs in using their Adobe credentials.

Step 2: AEM Sites Optimizer authenticates the user via Adobe IMS, verifies entitlements, and grants access to AEM Sites Optimizer user interface.

Step 3: The user sets configuration and preferences for their site, including domain(s) to be audited. This data is stored in the AEM Sites Optimizer Data Store.

Step 4a: Based on the configured domain from step 3, the AEM Sites Optimizer Core Agent requests the Data Retrieval Service to fetch data from the publicly accessible site and applicable first- and third-party data sources.

Step 4b: The Data Retrieval Service fetches the data from the different data sources and stores it in the AEM Sites Optimizer Data Store.

Step 5a: The AEM Sites Optimizer Core Agent triggers the Data Analysis Service on a regular basis to cleanse, normalize, and aggregate data on web performance, traffic trends, site content trends, and any other key signals.

Step 5b: The Data Analysis Service stores the aggregated information and statistics in the AEM Sites Optimizer Data Store.

Step 6: Based on the aggregated information and signals from step 5, the AEM Sites Optimizer Core Agent requests the Opportunity Detection Service to identify potential improvements by sending key metrics and URL of the page(s) of the website the service should focus on.

Step 7a: The Opportunity Detection Service pulls from the AEM Sites Optimizer Data Store: the retrieved data from step 4 and the aggregated data from step 5; and combines them.

Step 7b: The Opportunity Detection Service sends the combined data set[1] to Azure OpenAI for analysis. Azure OpenAI analyzes this data to identify patterns, performance issues, and areas for improvement across site performance, content structure, and search visibility. The Opportunity Detection Service then uses the AI-generated analysis together with the original data to identify specific optimization opportunities and generate reports with actionable recommendations for the customer's website.

Step 8a: The Opportunity Detection Service stores the generated reports and opportunities for user analysis in the AEM Sites Optimizer Data Store.

Step 8b: In case the opportunities identified in step 7 are eligible for automatic optimization, the Opportunity Detection Service passes the data of these identified opportunities to the Optimization and Fix Service.

Step 9a: The Optimization and Fix Service reviews identified issues, associated insights, content from user's public webpages, relevant metrics and signals, and source code used to build the site to propose appropriate optimizations.

Step 9b: Where reasoning or rewriting is required, the Optimization and Fix Service sends predefined system prompts along with relevant contextual information to Azure Open AI to generate content rewrites, metadata updates or code adjustment.

Step 9c: Azure OpenAI returns generated optimizations, and the Optimization and Fix Service validates the responses and stores proposed code, metadata and content updates in the AEM Sites Optimizer Data store.

Step 10a: The AEM Sites Optimizer user interface retrieves the stored data from the AEM Sites Optimizer Data Store and organizes it into the appropriate opportunities and reports.

Step 10b: The user reviews the reports and opportunities in the AEM Sites Optimizer UI. When optimizations are available, the user can approve them in the user interface, which will trigger the deployment to AEM.

Step 11: The Optimization and Fix Service applies the code and content optimizations[2] on the customer's AEM content and code repositories. Code optimizations are delivered as pull requests attached to issues in customer version control systems where they can then be reviewed and merged with standard code review processes and workflows[3].

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[1] *The data shared is determined by the specific optimization being performed and includes aggregated performance and usage metrics from AEM Operational Telemetry, content and structural information from the customer's publicly available website, and aggregated search performance and technical optimization metrics obtained from integrated SEO tools.*

[2] *Content optimizations are deployed into AEM Sites Author environments (for AEM as a Cloud Service and AEM Managed Services) and Preview tier (for AEM Edge Delivery Services). Users can promote content optimizations to AEM Sites publishing environment using their standard AEM Sites processes and workflows.*

[3] *Code and content optimizations are not deployed directly into production.*

AEM Sites Optimizer and Azure OpenAI

AEM Sites Optimizer currently leverages Azure Open AI to detect opportunities and generate suggestions for website optimizations. The following data may be passed to Azure Open AI:

- Content from customer's public website
- De-personalized website performance data from AEM operational telemetry
- SEO Tools. For more information, see Data Sources section below
- Fragments of website markup and scripts

Adobe has disabled logging in Azure OpenAI, helping ensure that Microsoft does not collect or store any data sent for processing to Azure OpenAI. More information is available at Azure OpenAI data privacy and security.

Adobe does not use any customer data to train or fine-tune the Azure OpenAI Service.

Content filtering

Adobe leverages Azure OpenAI's content filtering service to moderate hate, sexual, violent, and self-harm content. The service uses Microsoft's collection of proprietary models for content filtering that has both contextual and semantic understanding of text. Adobe has configured the content filter to filter "medium" and "high" severity outputs from the model but not to filter any input.

Testing

Adobe teams conduct testing to reduce the potential for biased and harmful outcomes in our generative AI products. For more information on the development and testing processes for our generative AI solutions, please see the Generative AI Built for Business solution brief. The 2026 Security Testing Report for Adobe Experience Manager includes AEM Sites Optimizer and can be accessed on the Adobe Trust Center (NDA required).

Data sources

AEM Sites Optimizer uses several types of data sources as core inputs, depending on specific customer configuration:

- **Public websites** – Publicly accessible content from customer websites collected via proprietary crawlers on customer-defined, in-scope domains.
- **Search Engine Optimization (SEO) Tools** – Uses a combination of Ahrefs, Google Search Console, etc. to understand key aspects of the customer's website, including most important pages by traffic value, keyword research, and competitive landscape analysis. These tools are also used to surface technical SEO issues across the site's pages and structure. Access to Google Search Console is optional and can be granted by the customer, in the settings section of the AEM Sites Optimizer UI. For more information, see Experience League.

- **AEM operational telemetry** – Ingests limited samples of metrics per URL, such as visits, bounce rate, consent rate, device, region, channel, and explicitly LLM channel classifications. By design, AEM operational telemetry preserves the privacy of end-users by sampling data, giving an approximation of overall traffic. This information helps AEM Sites Optimizer estimate how the website is behaving from a performance point of view and how visitors are engaging with the brand after landing on the website. Configured by default on AEM-based websites. For more information, see Experience League.
- **AEM source and content repositories** – Generates suggestions to optimize the customer's AEM content and code using customer-owned AEM repositories for source code and content used to build their website. Upon customer approval, AEM Sites Optimizer writes content or code fixes to these repositories.

Data usage

AEM Sites Optimizer does not use any customer data for training or product improvement.

Data processing and storage locations

AEM Sites Optimizer

Adobe hosts all components of AEM Sites Optimizer in AWS US-East.

Azure OpenAI

AEM Sites Optimizer sends all data for processing by Azure OpenAI to the Microsoft's data center in US-East. No data is stored in Azure OpenAI.

Data retention

AEM Sites Optimizer stores the following data:

- Application settings configured by the customer, including how they choose to segment their website analysis (such as by market, geography, or environment). These configuration settings are retained for the lifetime of the site configuration.
- Detected opportunities and proposed optimizations are stored until deletion by the customer or upon customer subscription cancellation.
- Imported data from AEM operational telemetry, Ahrefs, Google Search Console and other data sources are stored until customer subscription cancellation.

If a customer would like to delete a user's data, the customer should contact their Adobe customer support representative to initiate the deletion process.

Questions?

If you have any additional questions about the security posture and capabilities of AEM Sites Optimizer, please contact your Adobe account manager. For all other questions about Adobe's security programs and processes and compliance certifications, please see the Adobe Trust Center.

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