

Backend for Frontend (BFF)

A BFF IS A CUSTOM API LAYER BETWEEN THE FRONTEND AND BACKEND THAT STREAMLINES DEVELOPMENT AND DELIVERS DATA TAILORED TO THE UI

Design APIs for users, not systems

Modern applications often require customized API experiences for different clients like mobile apps, web platforms, internal tools, or third-party integrations. A single, generic API can lead to bloated responses, redundant requests, and complex frontend logic. The Backend for Frontend (BFF) pattern solves this by introducing a dedicated API layer between the frontend and backend that formats data specifically for each interface.

Build composable APIs without backend changes

Akamai AI and API Manager (AAM) provides a fully programmable API gateway that makes building BFFs easy and efficient. Developers can write policies that orchestrate calls to multiple upstream APIs, modify payloads, enforce authentication, and apply caching or rate limits. All of this happens without touching your backend code.

Example: Headless Storefront with Shopify

A headless e-commerce brand uses a modern frontend framework for its customer-facing storefront. The frontend needs to fetch product information, customer preferences, and location-based promotions from Shopify's API. Instead of performing all these requests from the browser:

- > The BFF consolidates multiple Shopify API calls into a single, optimized response.
- > It handles logic like pagination, filtering, and data transformation.
- > Sensitive credentials are secured by running all logic server-side in AAM.
- > Caching improves performance for authenticated users and reduces load on backend APIs.
- > The frontend remains lean by receiving only the data it needs.

Key Benefits

- > **Simplified frontend development**
Each client receives only the data it needs, reducing the complexity of frontend logic.
- > **Stronger security posture**
Sensitive credentials stay protected at the edge to avoid exposing tokens in the client.
- > **More ergonomic APIs**
The BFF layer shapes responses to match each frontend's requirements, improving developer productivity.
- > **Improved agility**
Updates to business logic or API composition can be made quickly without changes to the frontend or backend.

Bring agility, security, and control to your frontend APIs.

Contact us to see how leading teams are using AAM-powered BFFs in production.