**Where in the System**

* **EIE headers** are **not** a standalone transmission object — they are **derived from the id\_token** returned by the OAuth/OIDC token endpoint.
* The **API Gateway (APIC)** or downstream services extract these headers from the id\_token claims and then pass them **as HTTP headers** in subsequent service calls to maintain user context.
* The id\_token itself is returned from the /v7/auth/oauth/token endpoint along with the access\_token and refresh\_token.

**How They Are Carried**

1. **Token Issuance**
   * Client authenticates via /v7/auth/oauth/token (Authorization Code grant).
   * APIC token endpoint calls **DSV Service** (DirectoryServiceV3/retrieveuserInfo/{id}/users) to get user details from AD + business identifiers from the System of Record (e.g., IMI).
   * Business identifiers (ae\_busIndId) and other Aetna-specific claims are embedded into the **id\_token** payload.
   * Example EIE-relevant claims in the id\_token:

vbnet

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ae\_accountId: "1~DMT-S-W265416171"

ae\_busIndId: ["globalIdentifier", "60005~6803568937376433212", "preferredProxyId", "15~QS3YXBBBHPXZ"]

ae\_hcr: "nextGenMember"

* + These claims **are the source for EIE header values**.

1. **Header Creation**
   * When the id\_token is received by the API Gateway (or other trusted intermediary), it **parses the token** and maps relevant claims into **EIE headers**.
   * Each EIE header follows the idsource~idvalue format.
   * These headers are named per Aetna’s EIE header standard (e.g., eieheaderusercontext, eieheaderapplicationidentifier, etc.).
2. **Propagation**
   * Once generated, EIE headers are attached to all **downstream API requests** (BFF → Benefits Service → Core APIs).
   * This ensures every service in the call chain receives **consistent identity and business context** without each having to decode the token.
   * These headers travel **inside the HTTPS request** as standard HTTP headers, not in the body.
3. **Downstream Use**
   * Benefits Service, Plan Groups Service, and other backend services rely on the EIE headers to:
     + Identify the user and their memberships.
     + Apply business rules (e.g., HHL restriction).
     + Access correct plan sponsor and policy data.

✅ **Key Point for Architects:**  
The **id\_token is the sole origin** of EIE header values, but once the API Gateway parses them, they become **first-class HTTP headers** in all service-to-service traffic. This design reduces token parsing overhead in downstream microservices and standardizes identity propagation.

