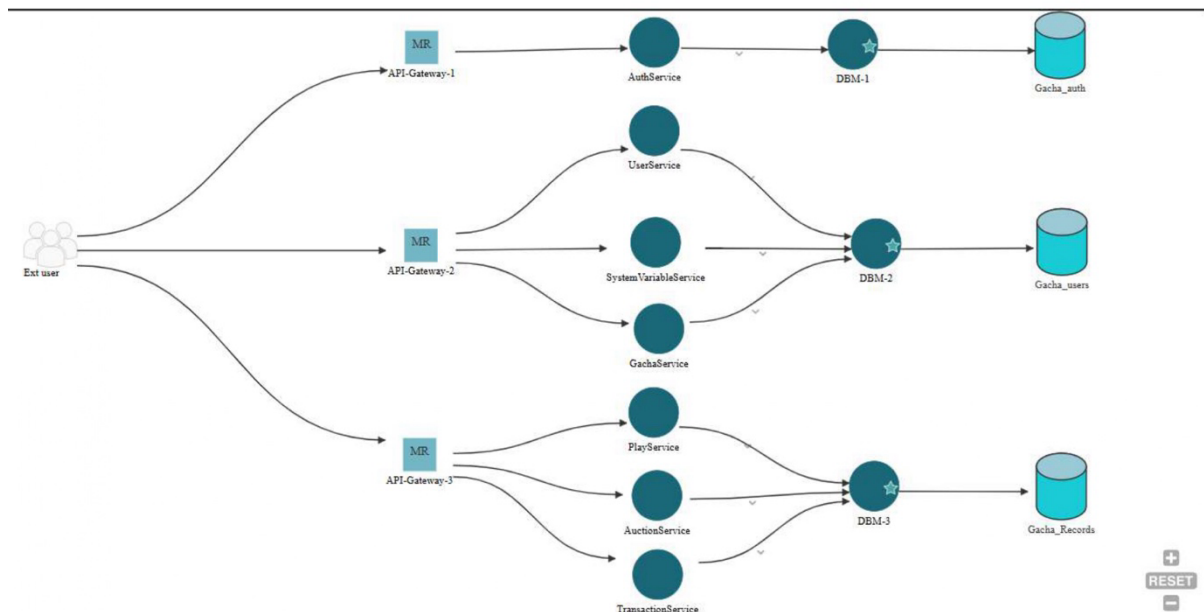


## Microfreshner Workflow



## Description Of the Microservices

### The **API Gateway One: User Management**

Microservice acts as the primary interface for handling user-related operations. It provides endpoints to create, update, and delete user accounts while ensuring robust access control and seamless integration with other services. Key features include:

- **Create User:** Allows new user accounts to be registered.
- **Update User:** Provides functionality to modify user details.
- **Delete User:** Ensures inactive users can be securely deleted, preventing the removal of active accounts.
- **Connectivity:** Integrates with the **Auth Service** for authentication and user state validation.

## The Auth Service

Acts as the intermediary between **API Gateway - User Management** and the database layer, ensuring secure and streamlined user authentication workflows. Key functionalities include:

- **Command Processing:** Receives commands from **API Gateway - User Management** for user-related actions, such as creation, updates, and deletions.
- **Forwarding Operations:** Passes user service requests and features to **Data Manager 1 (DBM 1)** for further processing.
- **Database Connectivity:** Interfaces with the **GachaAuth database**, which stores all authentication-related entities, including user credentials, session data, and access tokens.

## The API Gateway Two

Microservice serves as the central interface for managing game-related operations, consolidating requests across multiple services and coordinating their interaction with the database. Key features include:

- **Endpoints:** Hosts all endpoints for the **User Service**, **System Variable Service**, and **Gacha Service**, making it the entry point for game management operations.
- **Request Routing:** Forwards user, system variable, and gacha-related requests to the respective services and coordinates their processing.
- **User Service:** Manages player and admin accounts, enabling creation, updates, and deletions while maintaining game user integrity.
- **System Variable Service:** Maintains system constants such as the game name, portal name, in-game currency details, and exchange rates.
- **Gacha Service:** Stores and manages gacha-related data, including gacha names, rarity levels, prices, inventory, and other key details.
- **Database Management:** Integrates with **Database Manager 2 (DBM 2)**, which performs database operations on the **Gacha Users schema** to maintain consistent and reliable storage.

## The **API Gateway 3**

Microservice acts as the main interface for gameplay interactions, auction management, and transaction handling. It orchestrates requests among key services and the database, ensuring seamless game functionality. Key features include:

- **Endpoints:** Provides centralized access to the **PlayService**, **AuctionService**, and **TransactionService**, enabling streamlined interactions.
- **Request Routing:** Receives all gameplay, auction, and transaction-related requests, forwarding them to the respective services for processing.
- **PlayService:** Facilitates gameplay actions, such as rolling for a chance to win a gacha and direct gacha purchases.
- **AuctionService:** Allows admins to create and manage auctions while enabling players to view active auctions and list their gachas for sale.
- **TransactionService:** Manages financial operations, including:
  - Transferring money to sellers and gachas to winning bidders.
  - Handling in-game currency purchases using real money.
  - Maintaining exchange rates for transactions.
- **Database Management:** Integrates with **Database Manager 3 (DBM 3)**, which handles all operations on the **Gacha Records schema**, including gameplay outcomes, auction data, and transaction history.