**AFE** - AsianBGE Frontend

**ABE** - AsianBGE Backend

**WFE** - Wadzpay Frontend (Sign in form)

**WBE** - Wadzpay Backend

Model 1 - Redirect Sign in

1. **AFE** - user fills in the information about how much funds they want to transfer to AsianBGE and clicks on the “Pay with Wadzpay” button;
2. **AFE** sends a request with transaction information to **ABE**;
3. **ABE** sends a request to **WBE** with the same information with addition of the API key that identifies them as a valid merchant in **WBE** to create an order;
4. **WBE** saves this information as a temporary order and encrypts it in a secure token which is sent back to **ABE**;
5. **ABE** sends the token to **AFE**;
6. **AFE** redirects the user to **WFE - Wadzpay Sign in**, the URL contains the token with order information;
7. **WFE** presents a summary of the order (reservation/refreshing of crypto price) and a sign in form;
8. The user signs in with their email address and password;
9. **WFE** sends the token and the sign in information to **WBE**;
10. **WBE** checks if the transaction is possible for this user and sends the order confirmation to **ABE**;
11. **ABE** executes its business logic to add funds to the user and communicates success back to **WBE**;
12. **WBE** sends a push notification to the mobile application to inform the user about success and it also sends a successful response to the **WFE**;
13. **WFE** shows successful response and redirects the user back to **AFE** with a message about successful transaction;
14. **AFE** proceeds to show the user he has successfully added funds to their account (which can optionally also be confirmed with **ABE**).

Model 2 - Pairing with reference keys

1. **AFE** - user fills in the information about how much funds they want to transfer to AsianBGE and clicks on the “Pay with Wadzpay” button;
2. **ABE** generates a reference key which is paired with a specific user and sends it to **AFE**;
3. **AFE** presents user a guide to create a Wadzpay transaction which can be paired to their AsianBGE account;
4. User opens **WFE - Wadzpay mobile application** and creates a new transaction according to the guide (enters a reference key);
5. **WBE** sends the transaction information to **ABE** for confirmation;
6. **ABE** executes its business logic to add funds to the user and communicates success back to **WBE** (optionally it can also inform **AFE** or let user refresh the page on their own);
7. **WBE** informs the user about successful transaction via a push notification;

***Optional*** *- a dynamic link to the wadzpay mobile app could be used which would fill all the transaction information for the user directly after clicking on “Pay with Wadzpay” and then it could also redirect back to* ***AFE*** *with successful response.*