

SWA DESCRIPTION

The software architecture diagram for BeAvis' Car Rental starts on the left-hand side with the user devices (client or employee) which may be a cellular device, laptop, or a personal computer. Computer devices connect directly to the internet via preferred browser, while cellphones connect via an installed BeAvis application. Users have the option to utilize two-factor authentication, or to connect directly to their account bypassing 2FA. Once the user has gained access to the BeAvis system API Gateway, the system can connect to different features (GPS Service, Payment Processing, Inventory, Client History, and Account Services) and then return data to the user.

The GPS feature connects to GPS, which then communicates with the Ground Control Station which has control over satellites, and then returns the data from the satellite back to the BeAvis system, and then back to the client.

The Payment Processing feature initializes payment by connecting to the user's bank, submitting the payment from the user's bank to a Payment Processing Network, which in turn distributes the payment to BeAvis' bank as well as submitting proof of payment back to the BeAvis system.

The Inventory feature connects directly to the BeAvis Server which contains all of the inventoried vehicles, allowing users to browse and select available vehicles or employees to view inventory and schedule maintenance on vehicles.

The Client History feature connects directly to the BeAvis Database which contains all of the user's previous rental contracts and which vehicles were rented out, allowing both user and employees to navigate prior agreements.

The Account Services feature connects directly to the BeAvis Database which contains all of the user and employee account information and log-in credentials. This feature allows users or employees to make an account, view their account, or make changes to their account, such as enabling GPS or 2 Factor-Authentication.