

General Design

Version	Author	Note
1.0.0	pthoang@mail.com	Stubs
1.1.0	pthoang@mail.com	Design for Registration Flow
1.2.0	pthoang@mail.com	Design for Login/logout/forgot Flow
1.2.1	pthoang@mail.com	Remove check phone unique when registration
1.4.1	pthoang@mail.com	Design for KYC Investor & Company Mgmt
1.4.2	pthoang@mail.com	Add priority for company table (UI changes)
1..2	pthoang@mail.com	Design for Master, Lead Mgmt

Objective

- + Make sure to choose best practices and fit 100% with the business process.
- + Support developers can understand both technical and business processes.

Assumption

- + Authentication: no OAuth2 Server now can be reused.
- + Authorization: fix roles, so no need to manage permission.
- + Passwords do not need to be checked, so use bcrypt crypto algorithm.

Protection of API

We have 3 options:

1- Using IAM like Keycloak (support many types of authentication, authorization). Cons: Need time to integrate with Bib (Bib support also tenant, workspace, ...)

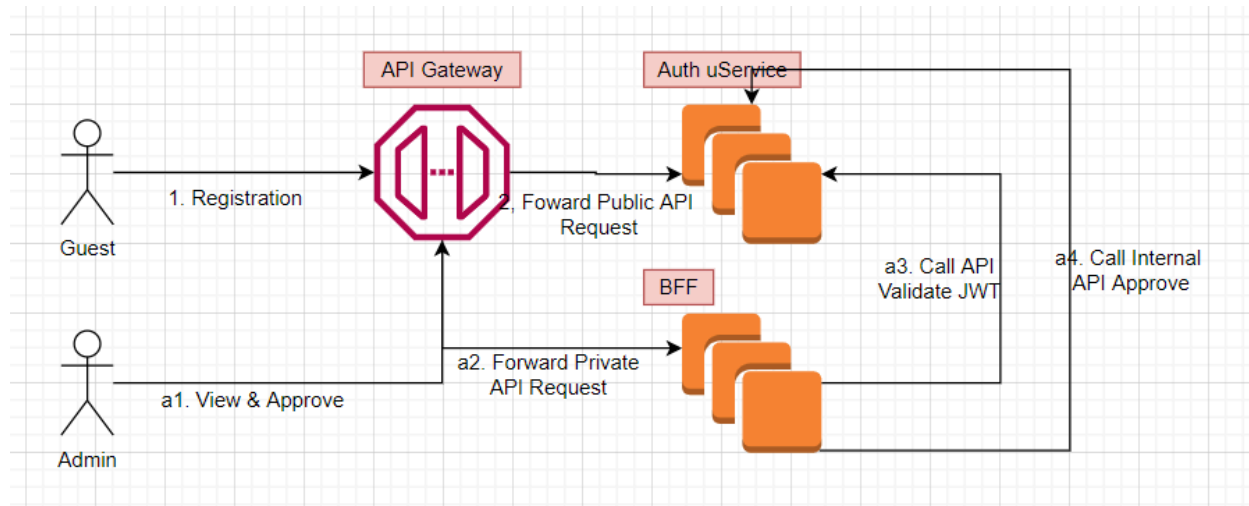
2- Using OAuth Server and our AuthUserService will be an identity server.

3- (choosed) Implement own for both Access/Identity, simple one which use JWT (server generate and manage)

Flow design, data design & interface design

1. BIB-1: Registration

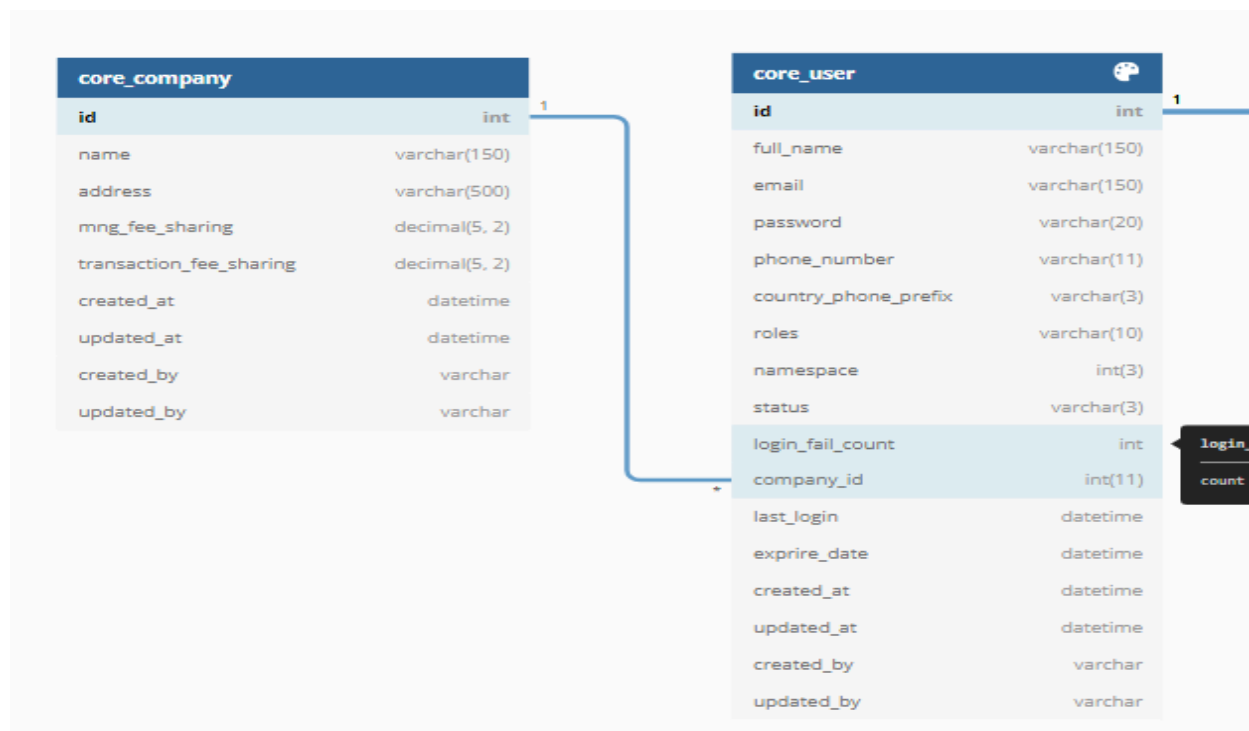
Module design



Data Model (ERD)

Reference: [DBDiagram Live](#)

Changes: Add priority to company table due to change in UI



Note:

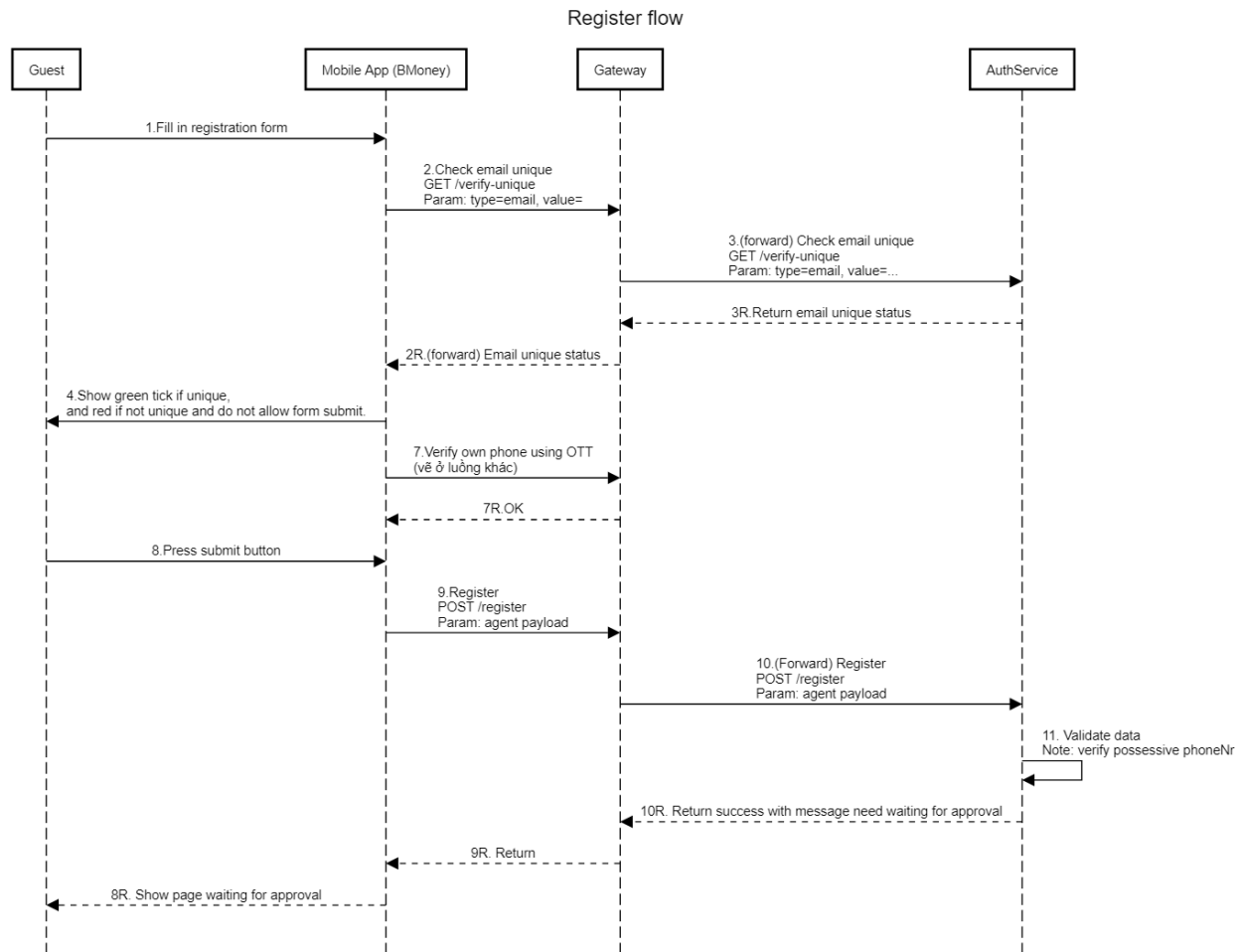
1- core_user: tạo mới 1 sales/agent

2- core_company: các company trong hệ sinh thái của Bib. **Notes: nếu company_id = 0/empty thì được hiểu là Bib.**

Technical Flow:

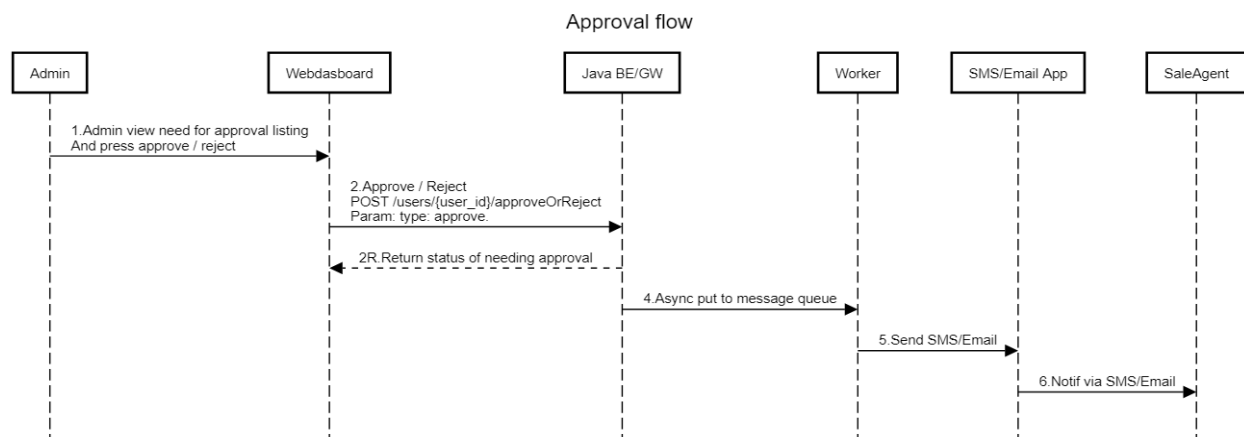
Flow for RM registration (~~include check phone unique~~)

Reference: [SequeceDiagram Live](#)



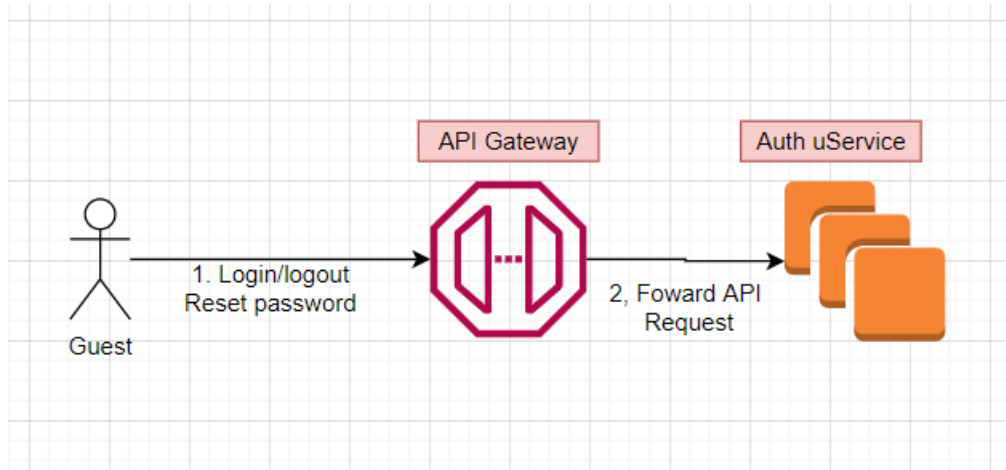
Flow for admin approve/reject RM

Reference: [SequenceDiagram Live](#)



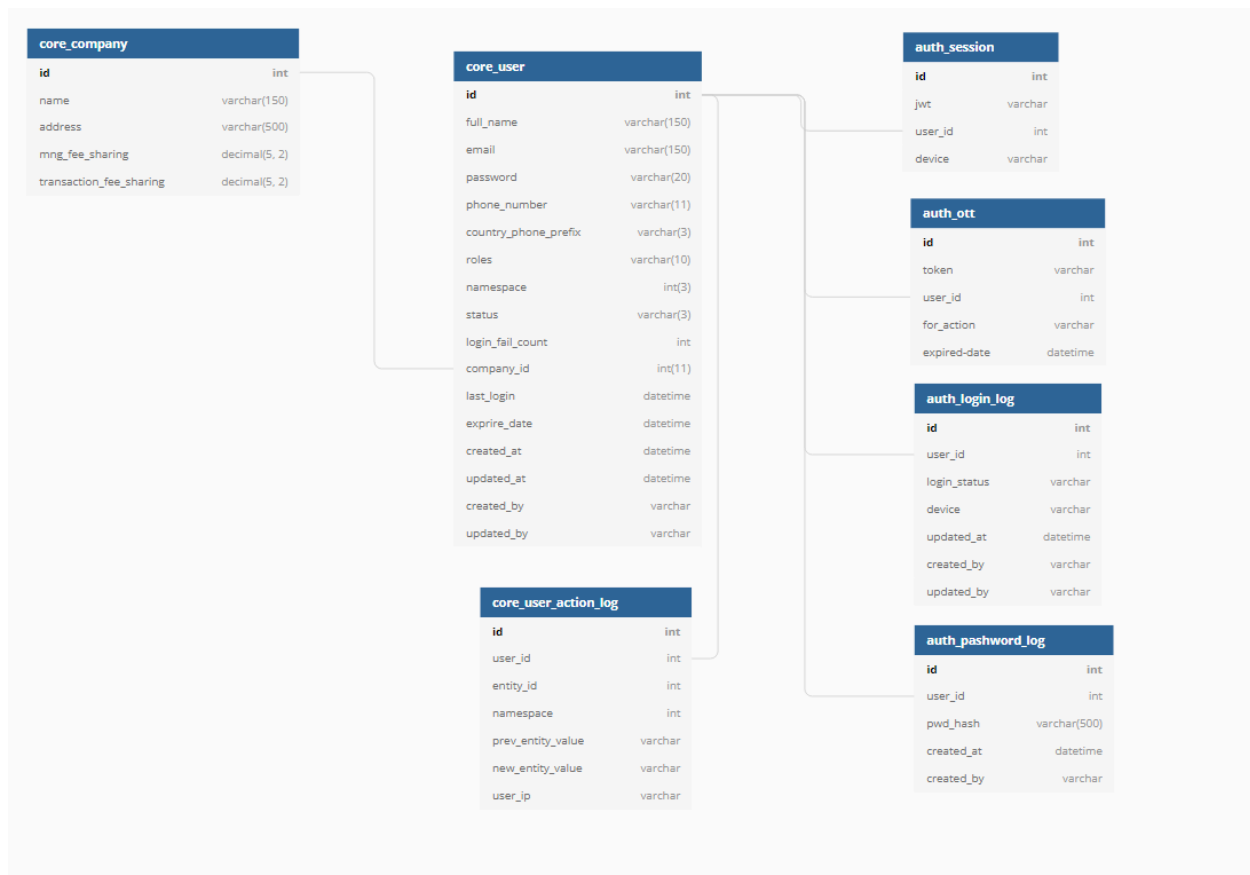
2. BIB-2: Login/logout, reset psw

Modules design



Data model (ERD)

Reference: [DBDiagram Live](#)



Note:

- 1- core-user: check username & password match. Note: có cache lại trường login_fail_count và last_login (dùng tính expired_date cho password)
- 2- auth_login_log: lưu các lần login thành công và thất bại. Note: cần lưu thông tin devices để check trusted device (có nghiệp vụ xóa trusted devices sau này không?)
- 3- auth_password_log: lưu các lần đổi password để khi đổi cần không trùng 5 password gần nhất.

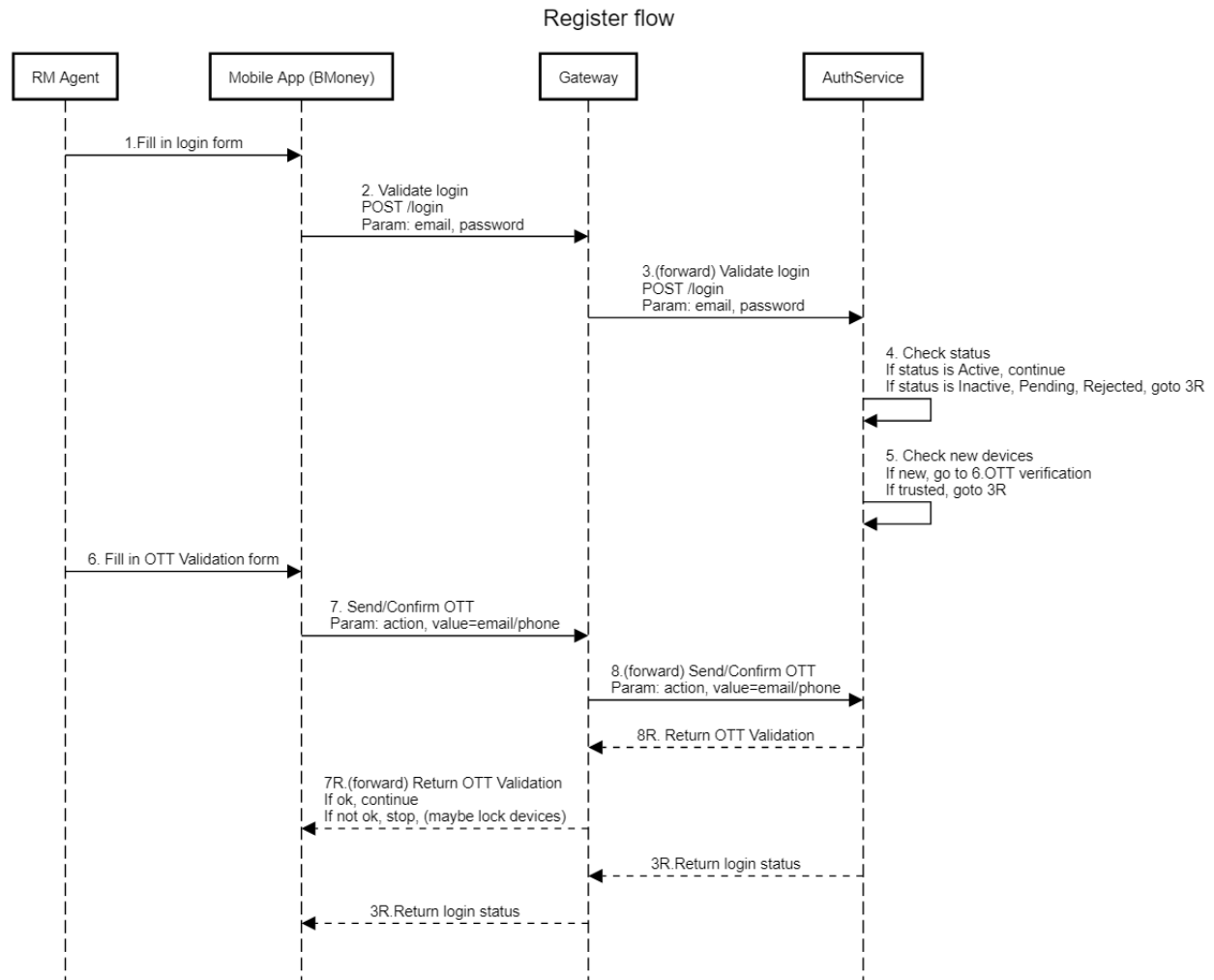
4- auth_session: lru session

5- auth_ott: lru ott

Technical Flow:

Flow for login using email/psw

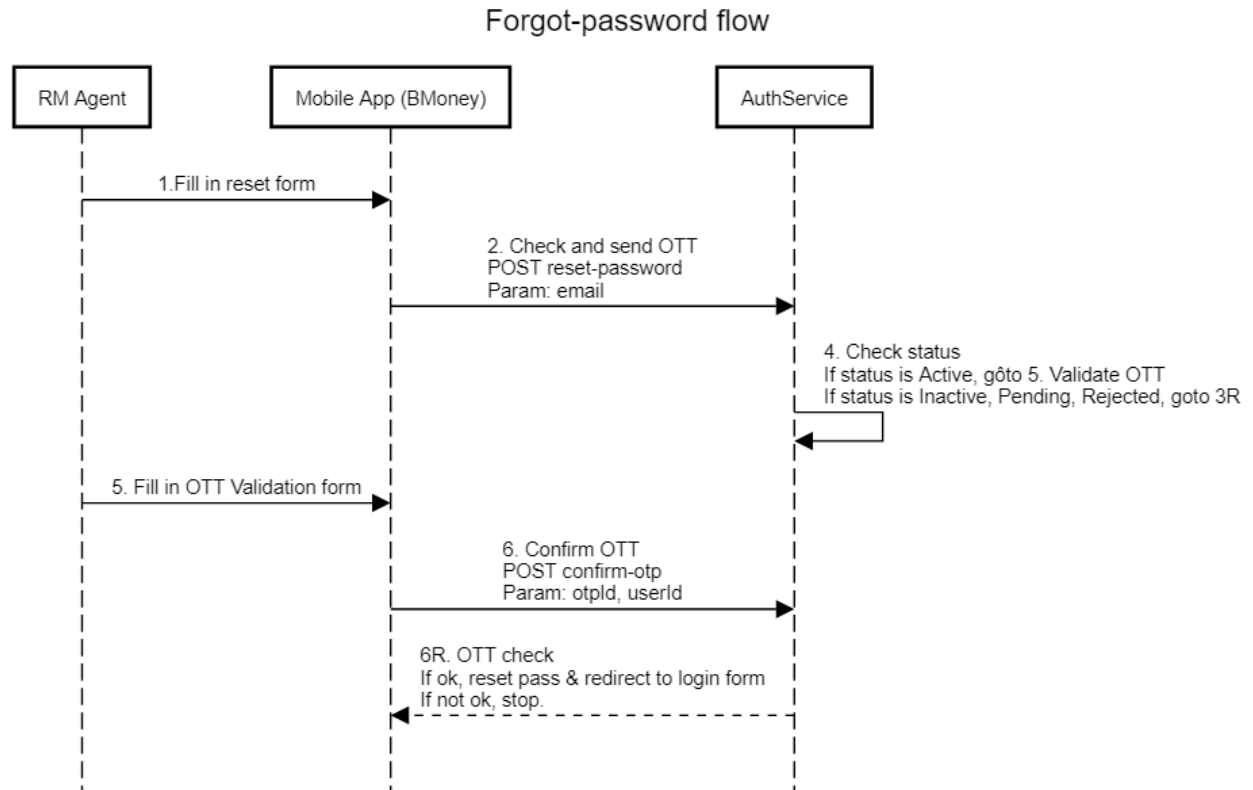
Reference: [SequenceDigram Live](#)



Http 401

Flow for reset-password

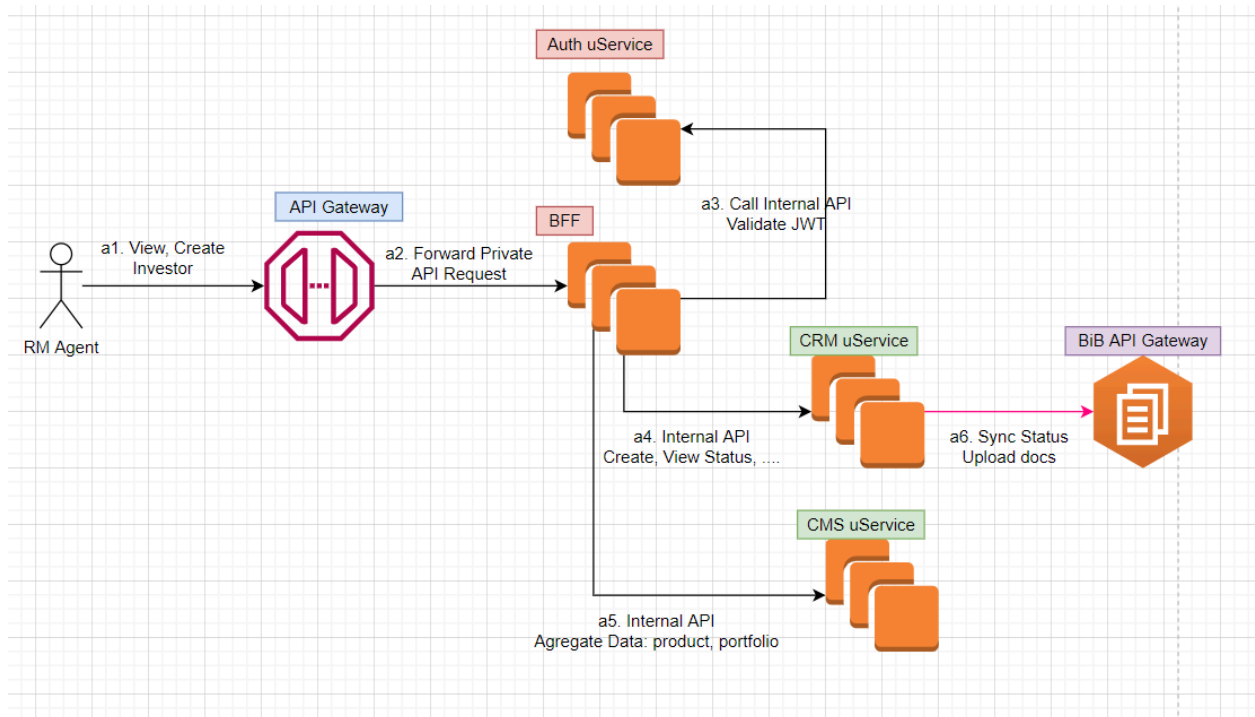
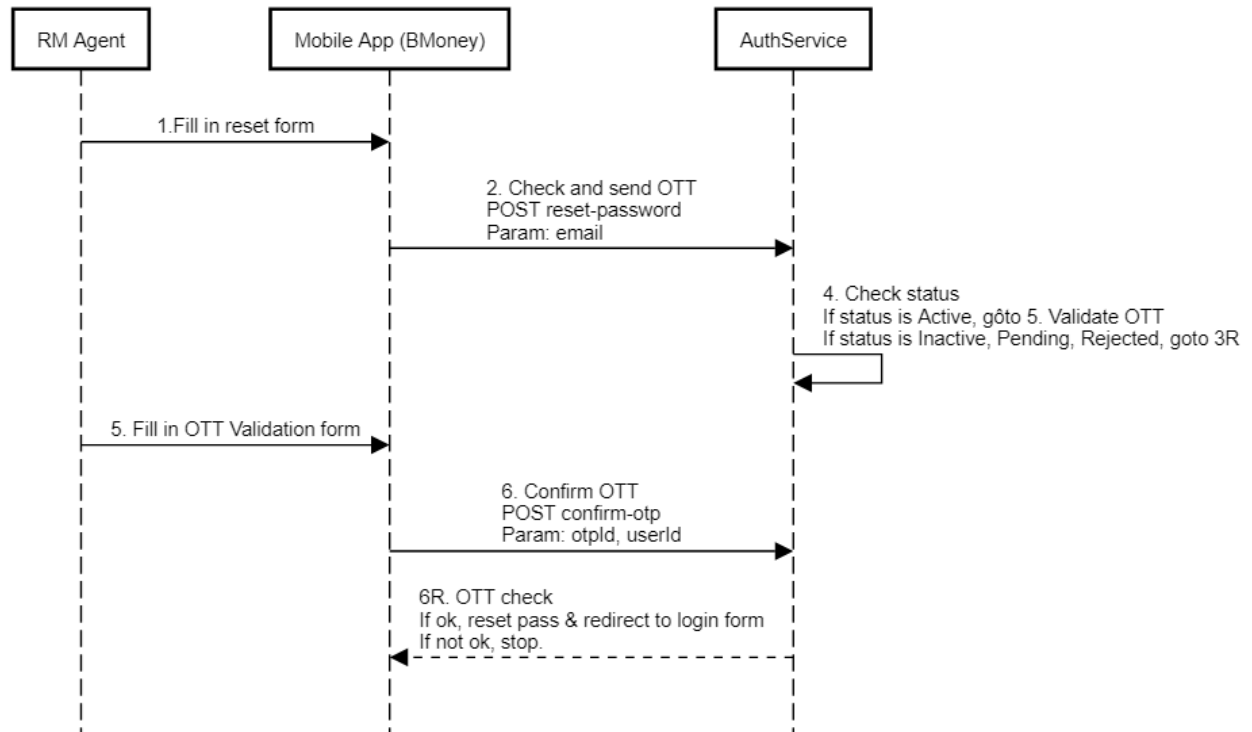
Reference: [SequenceDiagram Live](#)



3. BIB-3: KYC/Investor Management

Module design

Forgot-password flow



Investor data, view also:

- + Product that investor interested in ? CRM has only product_id
- + BFF: Backend for frontend

Data Model (ERD) [DBDigrame Live](#)

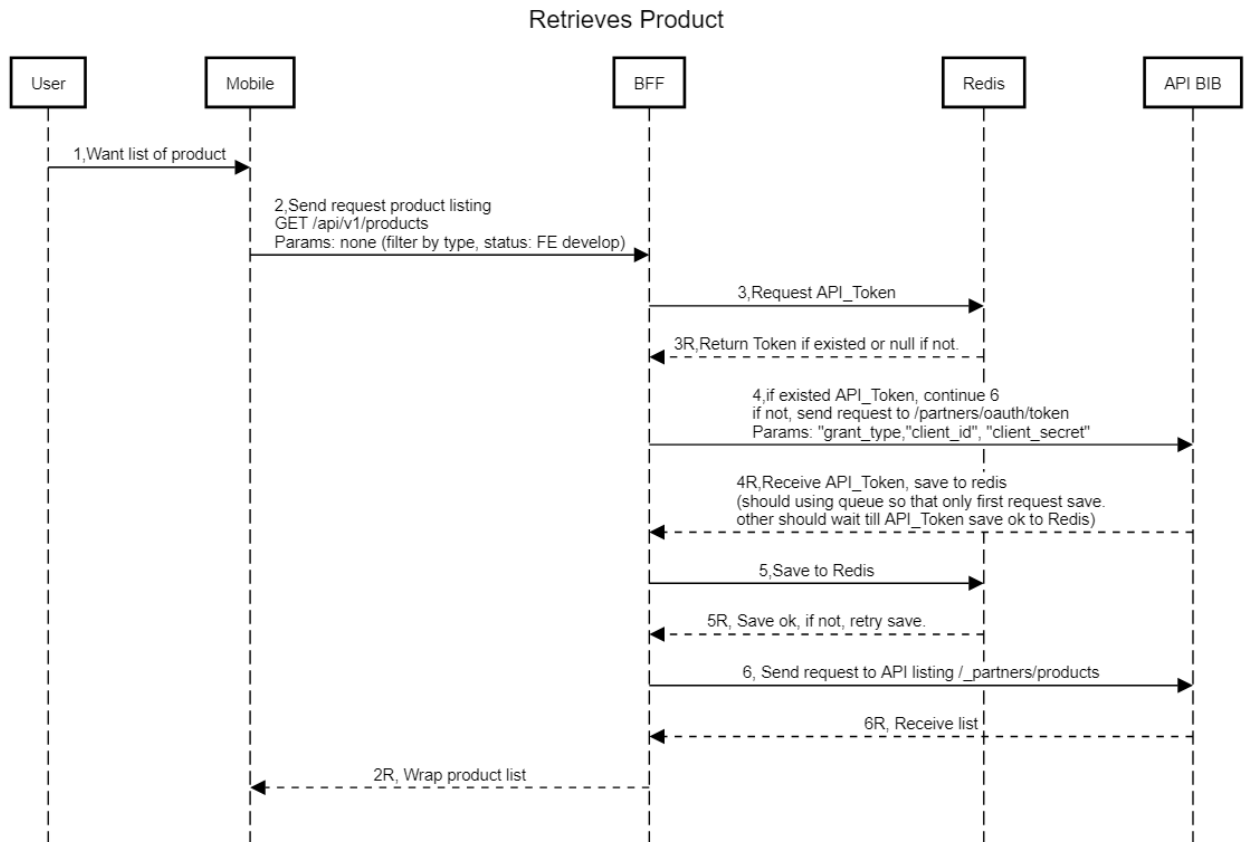
investor_individual		investor_corp		bank		country	
nik	varchar(20)	id	int	id	int	id	int
status	varchar(20)	status	varchar(20)	name	varchar(200)	name	varchar(200)
sign_method	int	sign_method	int	bank_branch	id	code	varchar(100)
fullname	varchar(50)	name	varchar(300)			province	
email	varchar(100)	country_of_domicile	varchar(300)			id	int
phone_number	varchar(20)	npwp	varchar(20)	bank_id	int	name	varchar(200)
place_of_birth	varchar(100)	fatca	varchar(20)	name	varchar(200)	districts	
date_of_birth	timestamp	npwp_registration_date	timestamp				
gender	varchar(10)	country_of_establish	varchar(100)				
religion	varchar(100)	place_of_establishment	varchar(100)				
marital_status	varchar(10)	type	varchar(20)				
occupation	varchar(100)	characteric	varchar(20)				
education	varchar(200)	income_level	int				
income_level	int	rick_profile	int				
rick_profile	int	investment_objective	int				
investment_objective	int	source_of_fund	int				
source_of_fund	int	asset_owner	int				
beneficiary_owner	varchar(500)	office_phone	varchar(15)				
politically_exposed_persons	varchar(500)	statement_type	varchar(15)				
bank_id	varchar(200)	authorized_person1_ktpExpDate	timestamp				
bank_account_no	varchar(20)	asset_information_idr	int				
bank_account_name	varchar(20)	redm_payment_bank_bic_code1	varchar(15)				
identity_picture_front	varchar(200)	redm_payment_bank_bi_member_code1	varchar(15)				
identity_picture_backside	varchar(200)	redm_payment_bank_name1	varchar(100)				
selfie_picture	varchar(200)	redm_payment_bank_country1	varchar(15)				
signature	varchar(200)	redm_payment_bank_branch	varchar(15)				
		redm_payment_ccy1	varchar(15)				
		redm_payment_no1	varchar(15)				
		redm_payment_name1	varchar(15)				
		authorized_person1_firstName	varchar(50)				
		authorized_person1_middleName	varchar(50)				
		authorized_person1_lastName	varchar(50)				

Note:

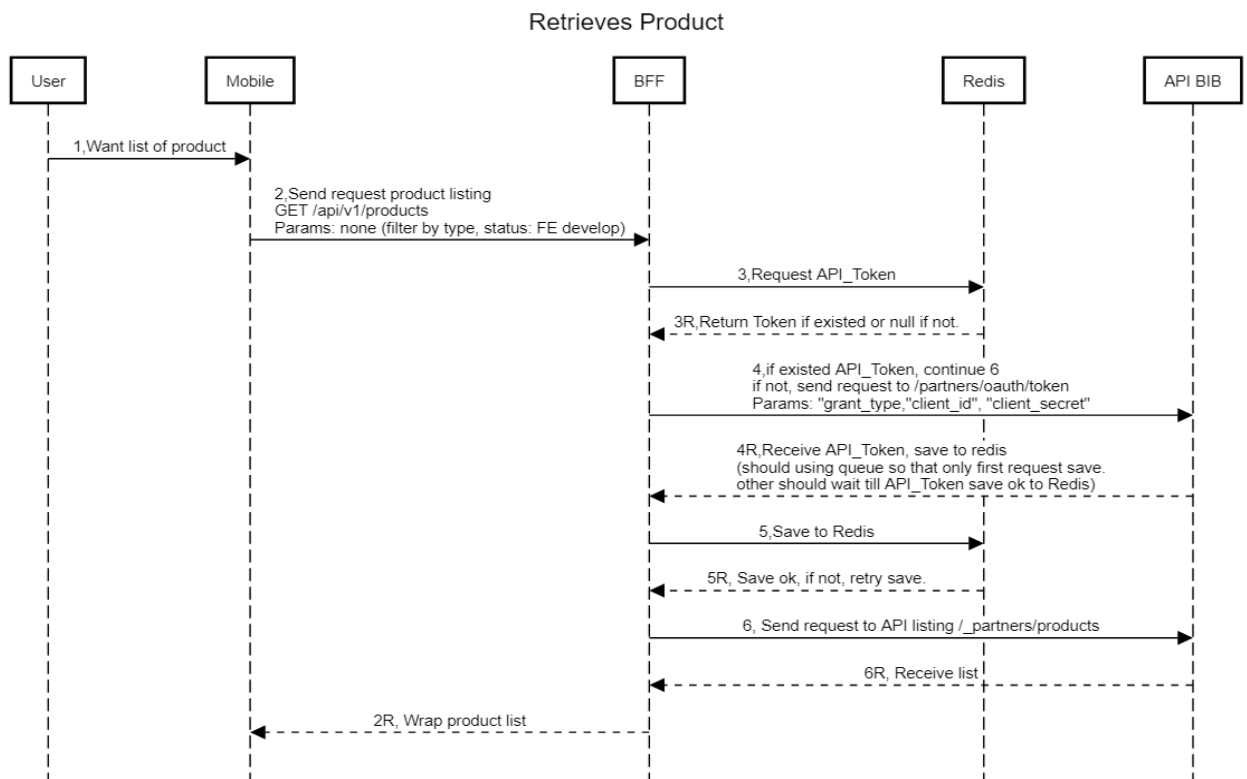
- 1- investor: các thông tin cơ bản của investor.
- 2- investor_individual: extra data cho nhà đầu tư cá nhân
- 3- investor_company: extra data cho nhà đầu tư doanh nghiệp
- 4- core_bank: thông tin bank của nhà đầu tư
- 5- core_bank_branch: thông tin chi nhánh ngân hàng
- 6- geo_country: đất nước
- 7- geo_province: tỉnh thành
- 8- geo_district: quận huyện

4. BIB-4: Transaction Management

5. BIB-5: Portfolio Management

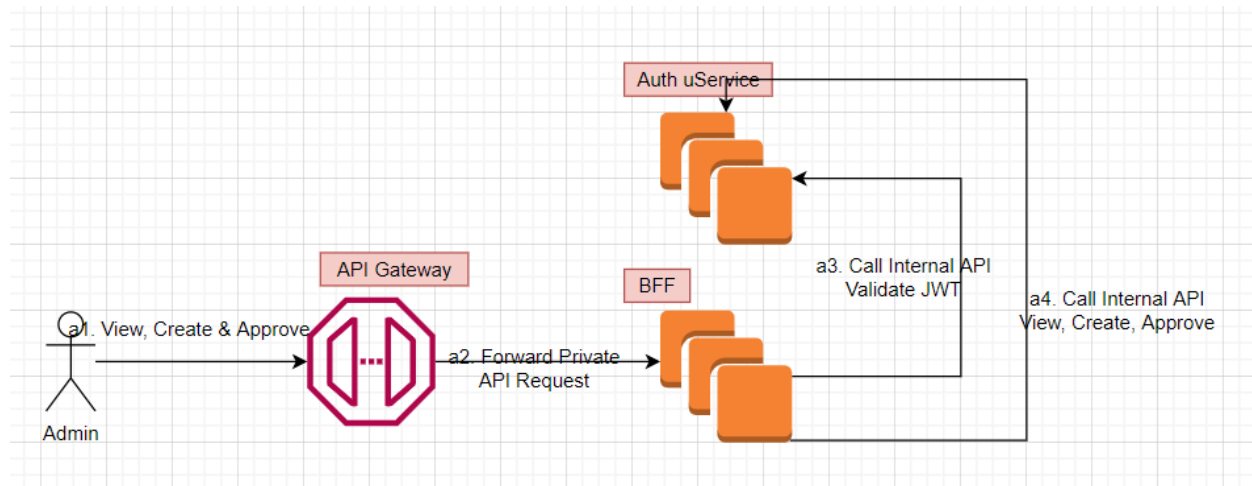


6. BIB-6: Product Management



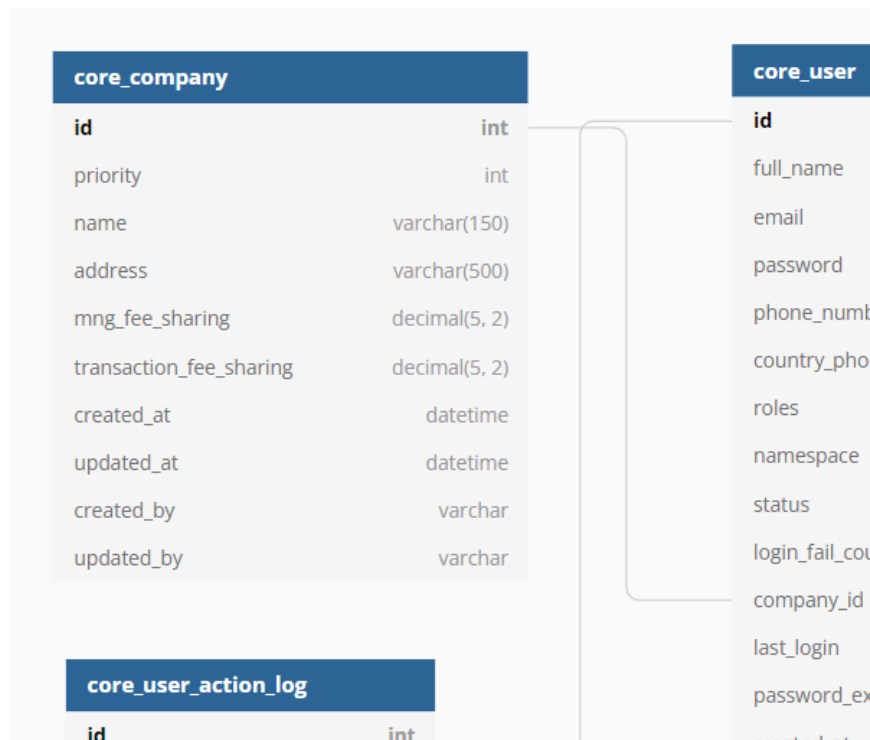
7. BIB-9: Master Data Management (company, location, bank, ...)

Module Design



Data Model (ERD)

Changes: Add priority



8. BIB-10: Reporting

9. BIB-7: Kafka Email/SMS

Roll-out plan

Phase 1: Release

- + Release v1 on Staging/Pre-production and test functional and non-functional features.
- + Release v1 on Production env
- + Monitoring & Fix bug

Phase 2: Maintenance