# [SCA] 技术方案文档模板

**[Title]{Technical Project Name} Technical Solution**

## Revision history(修改历史)

| Version | Revision date | Revisor | Revision content |
|---------|---------------|---------|------------------|
| v1 | 2022.02.22 | xxx | xxx |
| v2 | 2022.03.15 | xxx | xxx |

## Ownership(责任人)

| | |
|---|---|
| Product Manager | The PIC of Product manager |
| Project Manager | The PIC of Project Manager |
| Native Dev | The PIC of Android or iOS Dev |
| RN Dev | The PIC of React native dev |
| Server Dev | The PIC of non-native dev |
| Designer | The PIC of designer |
| QA | The PIC of QA |

## Resources(资源)

| | |
|---|---|
| PRD | *The link of PRD(s), created by product manager* |
| Figma | *The link of UI design* |
| Transify | *The link of transify in https://transify.seagroup.com* |
| Git Repo(Optional) | *The git repo or branch for this project if necessary to indicate* |
| Dependent Service Doc(Optional) | *SDK integration doc, official guideline, etc.* |
| Project Schedule Page (Optional) | *Usually created by project manager, timeline of the document* |
| Feasibility Study Doc (Optional) | *Usually feasibility study is ahead of PRD.* |

# Summary(摘要)

## Background(背景)

*Here to describe the background for this tech design*

## Goal(目标)

*Here to describe the goal you want to achieve*

## Specifications & Conventions(规格与约定) (optional)

*Here to describe the related specifications and conventions*

## Abbreviations(缩写) (optional)

*Here to describe the related abbreviations, eg.*

| ABB | Full name | Description |
|---|---|---|
| *FM* | *First Mile* | *从发件端到中转仓之间的物流服务商类型*<br><br>*The type of logistics service provider from sellers' warehouses to the transit warehouse* |

# Overall Design(总体设计)

*对本方案给出整体架构图 或者与 当前方案相关的部分架构图，包括主要模块、数据流、上下文关系等；*
*如果是部分变动，应使用文字描述或者图形标识突出有变化的地方，以及标识出在App架构分层中的位置等。*

*This solution provides the overall architecture diagram or the related part architecture diagram, including main modules, data flow, context relations, etc.*

*If it is a partial change, a text description or graphic identification should be used to highlight the changes, and mark the position in the App architecture layer.*

## Industry research & benchmarking(行业调研&对标)

- industry Implementation (行业的实现方案)

*Implementation of Architecture Diagram and its description*

## Brand new(全新设计)

- Implementation

*Implementation of Architecture Diagram and its description*

## Improvement(revamp/refactor) for existing feature(对现有系统的提升)

- Current

*Current Architecture Diagram and its description*

- Improvement

*Improvement Architecture Diagram and its description*

# Detailed Design(详细设计)

对本方案核心模块功能和交互实现的详细设计，可包括：模块间交互的时序图、状态图、子模块功能详细说明、代码组织形式（SDK、Framework、source、jar）、数据流、状态管理、兼容性、性能、异常处理、安全防护、扩展性

*The detailed design of the core module functions and interactive implementation of this solution, includes: sequence diagram of interaction between modules, state diagram, detailed description of sub-module functions, code organization(SDK, Framework, Source, JAR), data flow, state management, compatibility, performance, exception handling, security protection, expansility, etc.*

## Brand new(全新设计)

**[Implementation] Class Diagram/Sequence Diagram/State Diagram**

*Implementation of design better in UML charts*

## Improvement(revamp/refactor) for existing feature(对现有系统的提升)

**[Current] Class Diagram/Sequence Diagram/State Diagram**

*Current design better in UML charts*

**[Improvement] Class Diagram/Sequence Diagram/State Diagram**

*Improvement design better in UML charts*

# Interface Design(接口设计)

本方案对外提供的接口相关信息，如接口名称、协议、参数，及注意事项等，如

1、对内提供的接口描述，包括名称、类型（API、路由schema）、各参数（类型、描述、限制）等；
2、内部接口需要给出鉴权机制和其他安全性考虑；（如不涉及可不写）
3、给出对外接口描述，包括名称、地址或URL、类型（HTTP/HTTPS等）、协议内容、各参数（类型、描述、限制）等；
4、对外接口需要给出鉴权机制和其他安全性考虑；（如不涉及可不写）

*Interface information provided by this solution, such as interface name, protocol, parameters, and precautions, as follows*

1、 *Provide the internal interface description, including name, type (API, route schema), and parameters (type, description, and limit), etc.*
2、 *Internal interfaces need to be considered authentication mechanism and other security issues. (Do not write if not involved)*
3、 *Provide the external interface description, including name, address OR URL, type (such as HTTP or HTTPS), protocol content, and parameters (type, description, and limit), etc.*
4、 *External interfaces need to be considered authentication mechanism and other security issues. (Do not write if not involved)*

*Eg.*

| API description | /api/mobile/check_status | | | |
|---|---|---|---|---|
| API quality | Tps：1k，response time：5ms | | | |
| Call mode | POST | | | |
| Input | Parameter name | Requisite | Type | Remark |
| | channel_id | Y | int | |
| | client_id | Y | int | |
| | client_sn | Y | string | |
| Output | Response name | Requisite | Type | Remark |

接口设计要求安全可靠、调用清晰，HTTP接口统一使用*Yapi*，可以直接给出链接附在此处；

*The interface design must be secure, reliable and clear, Yapi would be used throughout for HTTP, you can directly attach here the link.*

# Storage Design(存储设计) (Optional)

*本方案存储相关信息，可包括：*
*1、 如涉及持久化要给出持久化方案，文件存储介质、目录组织形式、数据格式、保存周期与清理机制等；*
*2、 如果涉及数据库存储，需要给出数据库表定义、字段定义等；*

*The stored related information for this solution, include:*

*1、 If persistence is involved, the persistence solution should be given, file storage medium, directory organization, data format, storage period and cleaning mechanism, etc.*
*2、 If database storage is involved, you need to provide database table definitions, field definitions, and so on.*

# Data track & Monitoring(数据监控)

*The data you wanna track in Firebase or Lumos or any other data platform*

# Others (Optional)

*描述其它关注点的设计点，例如安全、兼容、依赖等*

*Describe the design points of other concerns, such as security, compatibility, dependencies, and so on*

### Security or privacy risks checklist(安全或隐私风险确认项)

*Checklist for the risks according your business, might be privacy or security and so on*

### Solution for compatibility with older versions (according to Feasibility study)(对旧版本的兼容性)

*How you solve the compatibility problems, after this design is implemented, old version can still work, and future change should not cause great*

## Dependency of third party SDKs(第三方依赖)

*List of the sdks you involved in this design Or the link to [SDK Integration]Feasibility Study*

## Legacy & Risk Appraisal(遗留问题与风险评估) (Optional)

*本方案遗留问题和风险评估可包括：*
*1、本次方案受限于时间、人力、外部因素等原因，某一部分未充分设计或者实现，可能带来的影响，以及下阶段的改进计划*
*2、受限于外部依赖限制、硬件资源、网络等不可控条件，存在的运行和运营风险*

*Residual issues and risk assessment of the solution, include:*

*1、This solution is limited by time, manpower, external factors or other reasons, a section that is not adequately designed or implemented, the possible impact, and the improvement plan for the next stage*
*2、Limited by external dependencies, uncontrollable conditions such as hardware resources or networks and so on, existing service and operational risks*

## Appendix(附录)

*本方案的一些附带内容，例如引用的文档链接、技术分析说明等*

*Some incidental content of this solution, such as the referenced document links, technical analysis notes, and so on*

## MileStones(里程碑与排期)

| # | Milestone Objective | Owner | Timeline | Risks | Comments |
|---|---------------------|-------|----------|-------|----------|
| 1 | | | <ul><li>ETA Test :</li><li>ETA UAT :</li><li>ETA Live :</li></ul> | | |
| 2 | | | <ul><li>ETA Test :</li><li>ETA UAT :</li><li>ETA Live :</li></ul> | | |
| ... | | | | | |

## Tickets

| Task content | PIC | JIRA Ticket |
|--------------|-----|-------------|
| *1 sentence summary of this sub task content, can be the title of JIRA ticket* | *Android dev name* | ☑SPFE-47978 - [Android]Template Task `WAITING` |