SINGAPORE
2019

26th ITS World Congress
21–25 October

Smart Mobility, Empowering Cities

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2019

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21–25 October

ICT and recent last-mile delivery practices in Korea

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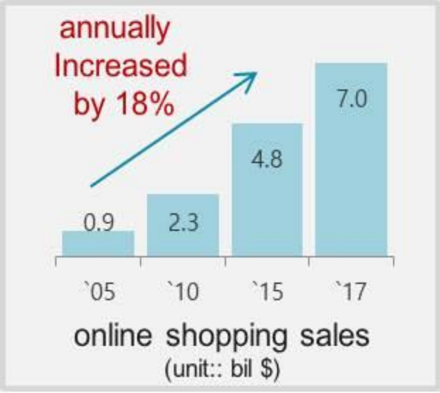
Department of Logistics Research
The Korea Transport Institute
MetroFreight Center of Excellence

Transforming Freight Movements through ITS – Part III (SIS35)

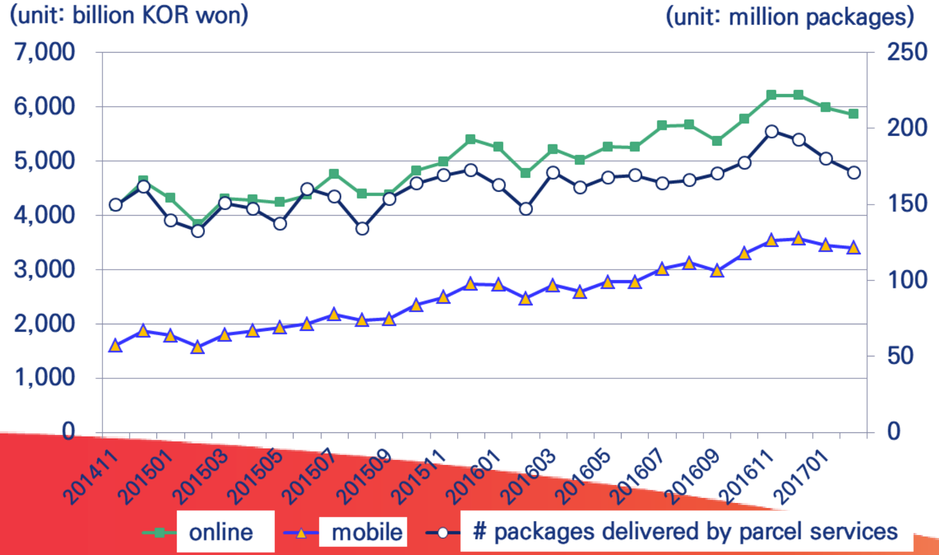
Growing e-commerce and delivery

Online/mobile shopping sales



FRESH
DELIVERY

early morning
grocery delivery



Data sources: KOILA, KOTIS and individual company's internal datasets

Parcel delivery service

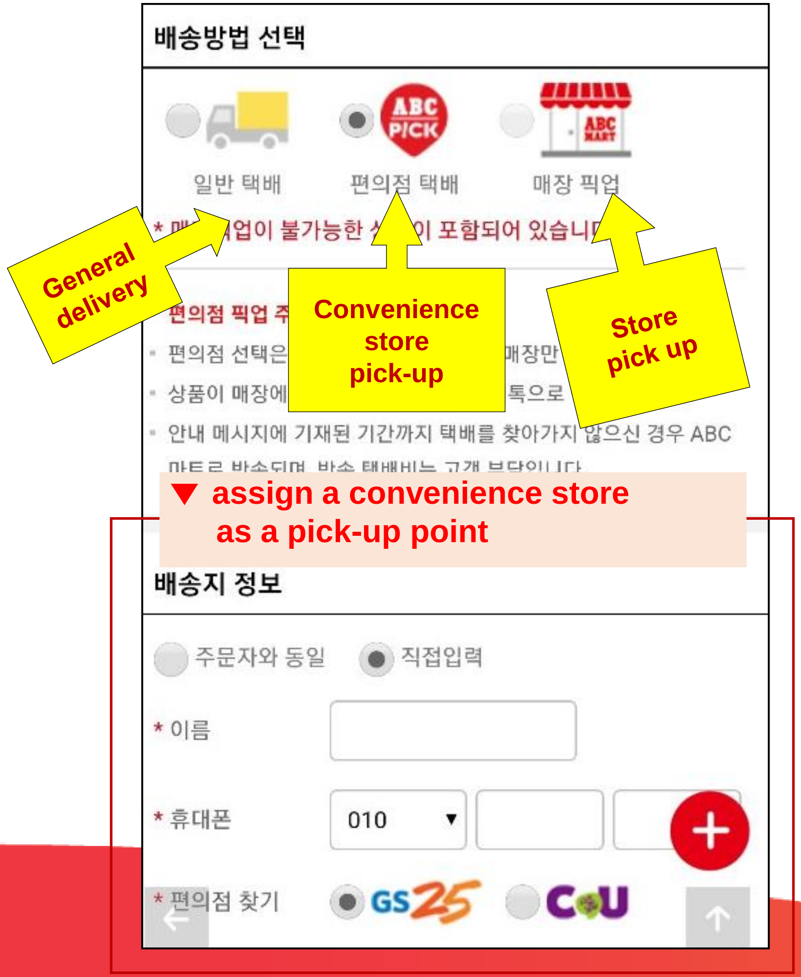
- Revenues: $5.67 billion in 2018 (8.7% growth from 2017)
- 2.5 billion packages (92.2 packages per economically active person p.y.)

Consumer demand changing

- Shipment tracking and modifying
- Overnight delivery
- Diverse delivery channels
- While lots of service, safety, environ. challenges

Solutions: 1st generation (pre-planned by customers)

Assign delivery location



배송방법 선택

○ 일반 택배 ● 편의점 택배 ○ 매장 픽업

General delivery

Convenience store pick-up

Store pick up

* 매 업이 불가능한 이 포함되어 있습니

편의점 픽업 주

- 편의점 선택은 매장만
- 상품이 매장에 톡으로
- 안내 메시지에 기재된 기간까지 택배를 찾아가지 않으신 경우 ABC 마트로 반송되며, 반송 택배비는 고객 부담입니다

▼ assign a convenience store as a pick-up point

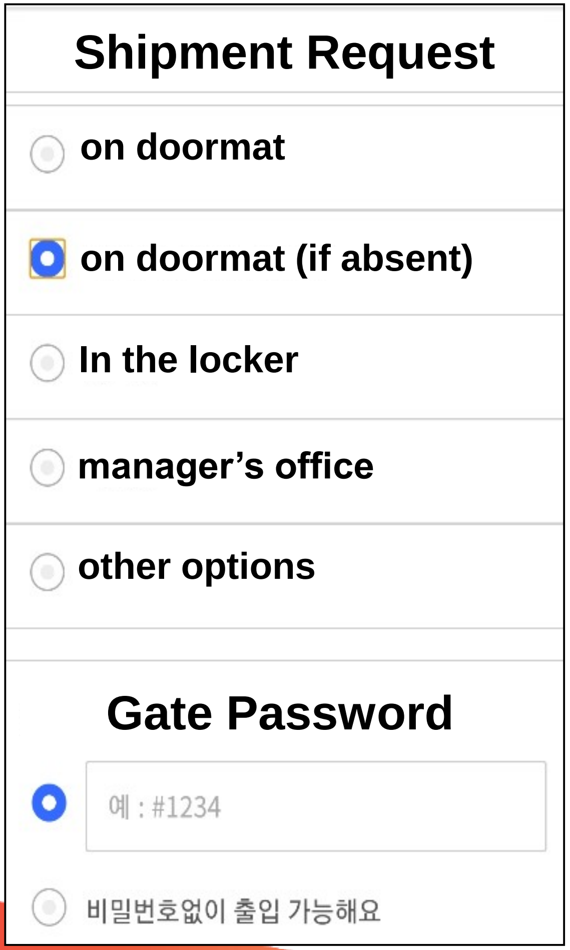
배송지 정보

○ 주문자와 동일 ● 직접입력

* 이름

* 휴대폰 010 ▾

* 편의점 찾기 ● GS25 ○ CU



Shipment Request

○ on doormat

● on doormat (if absent)

○ In the locker

○ manager's office

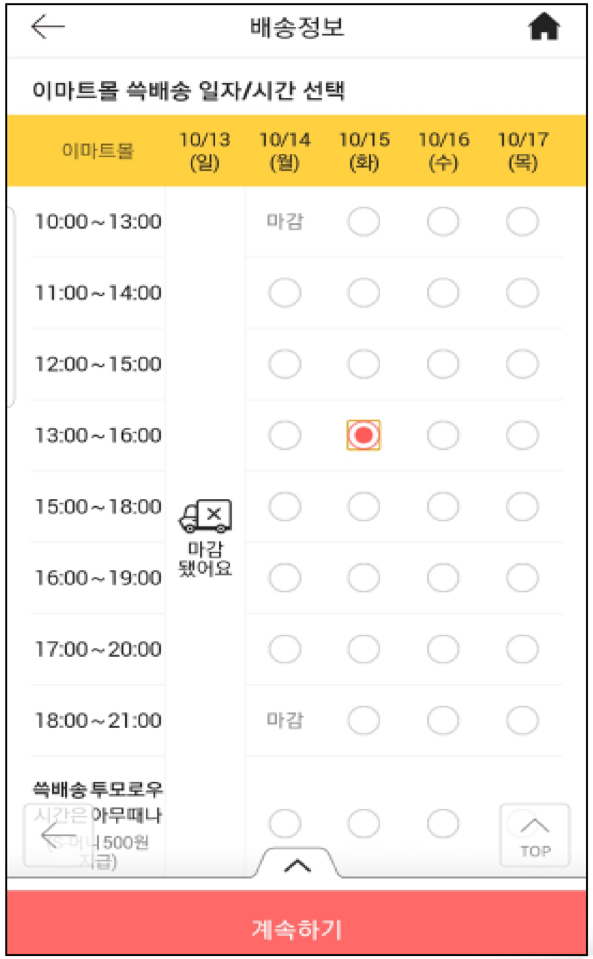
○ other options

Gate Password

● 예 : #1234

○ 비밀번호없이 출입 가능해요

Assign delivery time



이마트몰 쓱배송 일자/시간 선택

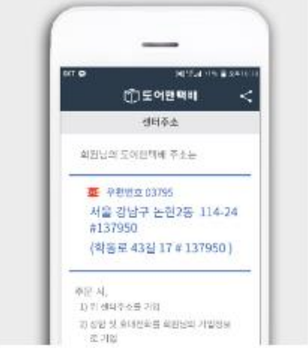
이마트몰	10/13 (일)	10/14 (월)	10/15 (화)	10/16 (수)	10/17 (목)
10:00~13:00	마감 됐어요	마감	○	○	○
11:00~14:00		○	○	○	○
12:00~15:00		○	○	○	○
13:00~16:00		○	●	○	○
15:00~18:00		○	○	○	○
16:00~19:00		○	○	○	○
17:00~20:00		○	○	○	○
18:00~21:00		마감	○	○	○
쓱배송투모로우 시간은 아무때나 (S-머니 500원 지급)		○	○	○	

Solutions: 2nd generation (3rd party drop-off/pick-up)

Case 1: DOORMAN Logis

Sources: doorman.co.kr, Korea Logistics News

① **Designate a DOORMAN center**



도어맨택배

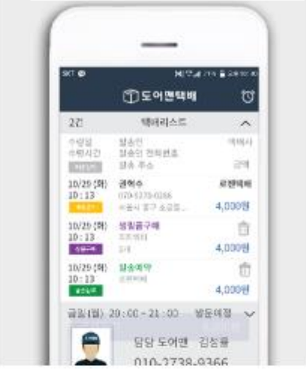
센터주소

우편번호 03795

서울 강남구 논현2동 114-24 #137950

(학동로 43길 17 # 137950)

② **Assign delivery destination and time**



도어맨택배

4,000원

4,000원

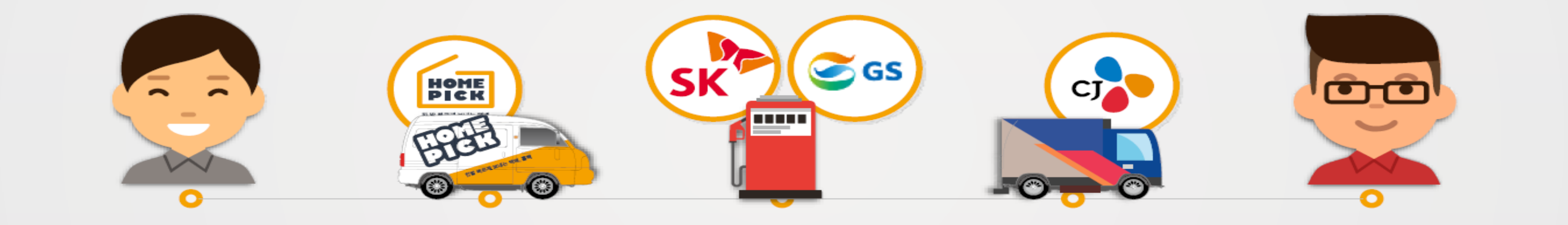
4,000원

+ Add more services on demand (w/ charge)

Returning/ mailing packages

Grocery shopping

Case 2: HOMEPICK



shipper orders

pick up within 1 hour

consolidated at a gas station

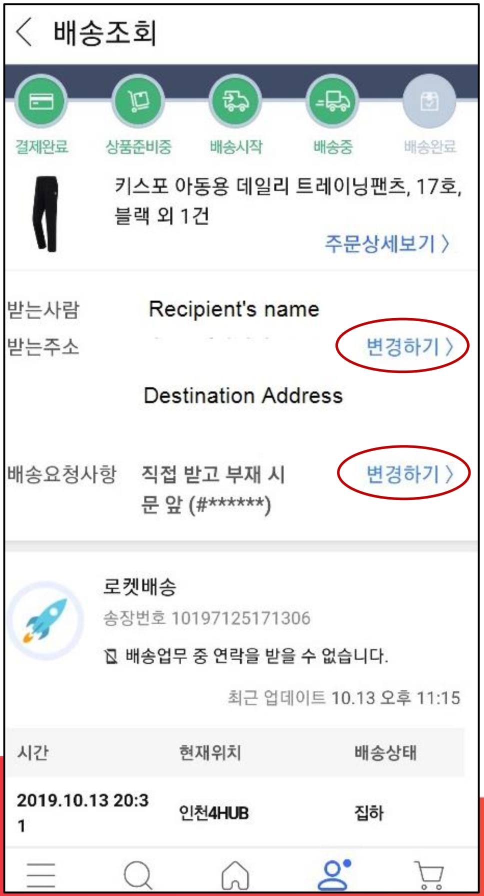
delivered by parcel service

customer receives

Source : Zoomma, "HOMEPICK" Brochure

Solutions: 2nd generation (on-route interaction)

1. Choose delivery/pick-up location when ordering (locker, conv' store)
2. Check/change destination/options during delivery



배송조회
결제완료
상품준비중
배송시작
배송중
배송완료

키스포 아동용 데일리 트레이닝팬츠, 17호, 블랙 외 1건

주문상세보기 〉

받는사람 Recipient's name

받는주소 Destination Address 변경하기 〉

배송요청사항 직접 받고 부재 시 문 앞 (#******) 변경하기 〉

로켓배송

송장번호 10197125171306

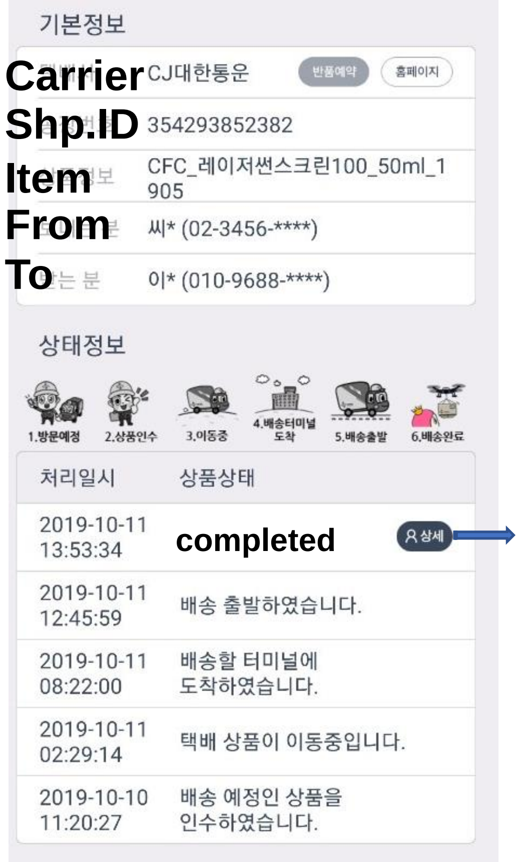
배송업무 중 연락을 받을 수 없습니다.

최근 업데이트 10.13 오후 11:15

시간	현재위치	배송상태
2019.10.13 20:31	인천4HUB	집하

Change destination

Change delivery options



반품예약
홈페이지
1.방문예정
2.상품인수
3.이동중
4.배송터미널 도착
5.배송출발
6.배송완료
상세

기본정보

Carrier CJ대한통운

Shp.ID 354293852382

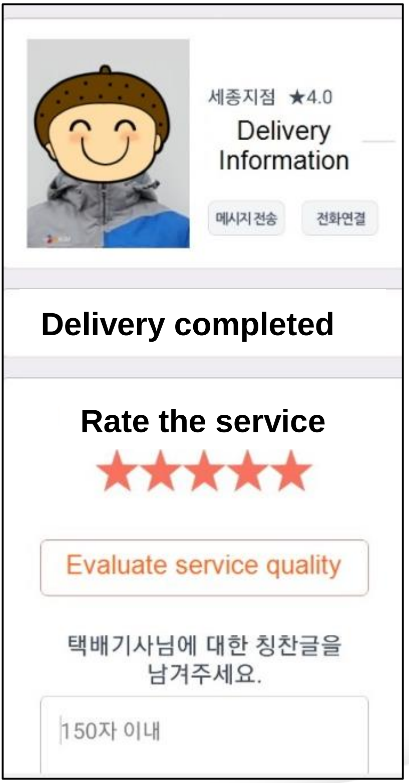
Item CFC_레이저썬스크린100_50ml_1905

From 씨* (02-3456-****)

To 이* (010-9688-****)

상태정보

처리일시	상품상태
2019-10-11 13:53:34	**completed**
2019-10-11 12:45:59	배송 출발하였습니다.
2019-10-11 08:22:00	배송할 터미널에 도착하였습니다.
2019-10-11 02:29:14	택배 상품이 이동중입니다.
2019-10-10 11:20:27	배송 예정인 상품을 인수하였습니다.



메시지 전송
전화연결
Evaluate service quality
150자 이내

세종지점 ★4.0

Delivery Information

Delivery completed

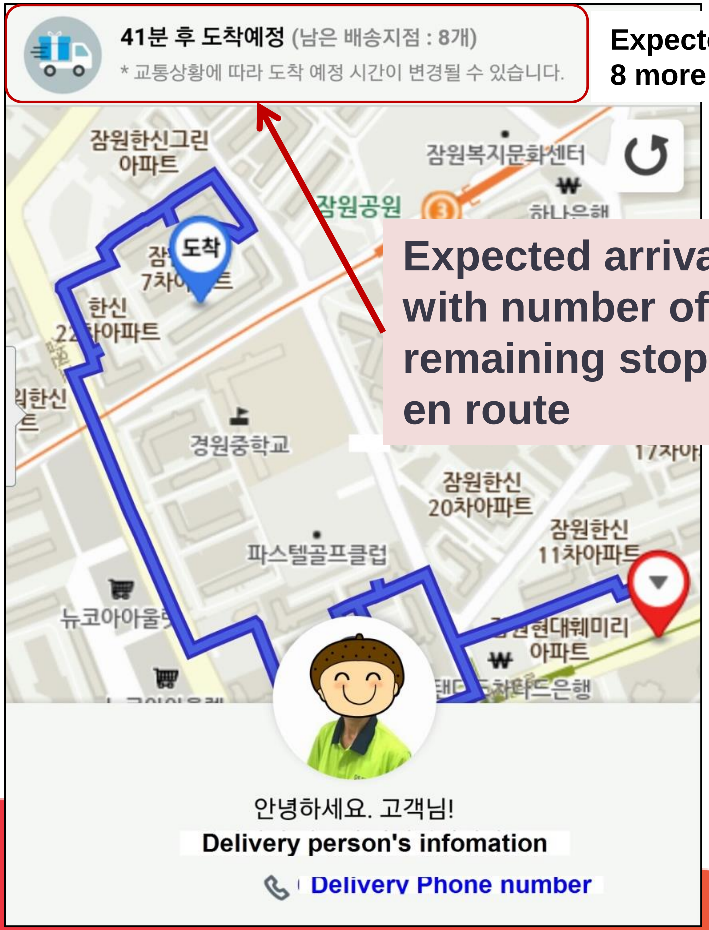
Rate the service

★★★★★

택배기사님에 대한 칭찬글을 남겨주세요.

Solutions: 2nd generation (on-route interaction)

3. Notify delivery time windows & detailed route information



41분 후 도착예정 (남은 배송지점 : 8개)
* 교통상황에 따라 도착 예정 시간이 변경될 수 있습니다.

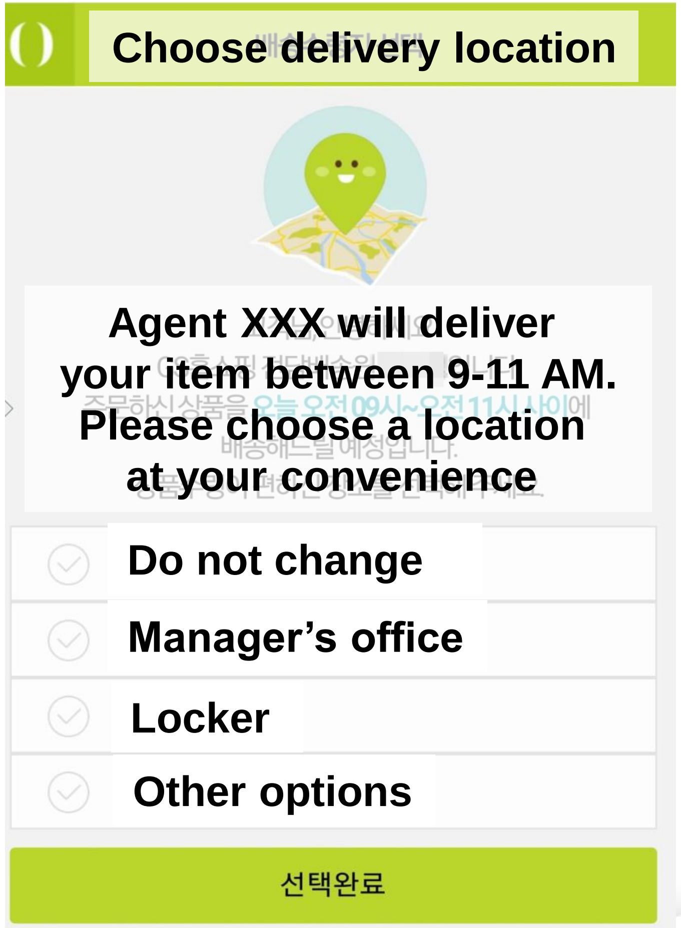
Expected to be delivered in 41 minutes
8 more points to stop by before delivery

Expected arrival time with number of remaining stop-by points en route

잠원한신그린 아파트
잠원복지문화센터
잠원공원
하나은행
도착
한신 22차아파트
경원중학교
잠원한신 20차아파트
잠원한신 11차아파트
파스텔골프클럽
뉴코아아울렛
현대훼미리 아파트
스탠다드차타드은행

안녕하세요. 고객님!
Delivery person's infomation
☎ Delivery Phone number

4. Last-minute choice/change of the actual delivery point/method



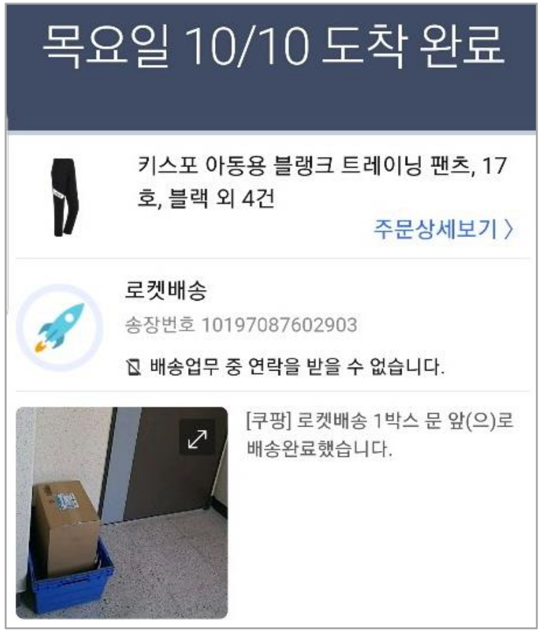
Choose delivery location

Agent XXX will deliver your item between 9-11 AM. Please choose a location at your convenience

○ Do not change
○ Manager's office
○ Locker
○ Other options

Solutions: 2nd generation (on-route interaction)

5. Delivery confirmation / Options after delivery



목요일 10/10 도착 완료

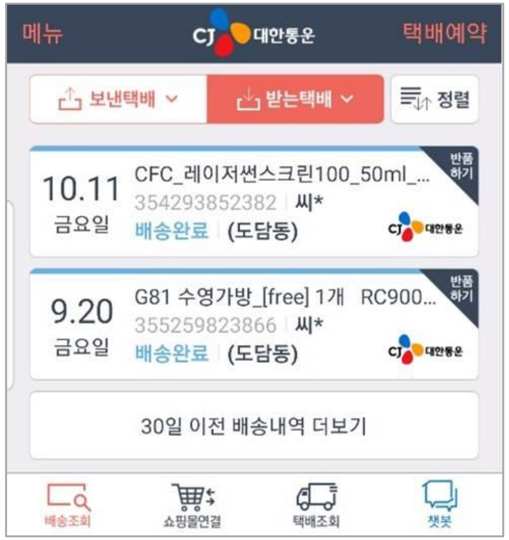
키스포 아동용 블랭크 트레이닝 팬츠, 17호, 블랙 외 4건

로켓배송

송장번호 10197087602903

배송업무 중 연락을 받을 수 없습니다.

[쿠팡] 로켓배송 1박스 문 앞(으)로 배송완료했습니다.


메뉴
CJ대한통운
택배예약
보낸택배
받는택배
정렬
반품하기
반품하기
배송조회
쇼핑몰연결
택배조회
챗봇

10.11 금요일	CFC_레이저썬스크린100_50ml_... 354293852382 | 씨* 배송완료 | (도담동)
9.20 금요일	G81 수영가방_[free] 1개 RC900... 355259823866 | 씨* 배송완료 | (도담동)

30일 이전 배송내역 더보기

Smart Mobility, Empowering Cities