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Guidelines for contactless delivery services

Lignes directrices relatives aux services de livraison sans contact

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

International Workshop Agreement IWA 36 was approved at a series of workshops hosted by the Standardization Administration of China (SAC), in association with China Council for the Promotion of International Trade Commercial Sub-Council (CCPIT-CSC), held virtually between March 2021 and January 2022.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

Faced with the impact of the outbreak of the COVID-19 pandemic, related delivery platforms (including food delivery and grocery delivery) launched a "contactless delivery" service. Contactless delivery services have made a substantial contribution to the health and safety of consumers and couriers during the pandemic.

This document aims to improve transparency and understanding between consumers and delivery service providers and to promote the transformation of service standards and operation models. This document aims to enable couriers provide better value for consumers and reduce risk in the delivery service process. This document aims to help enhance the effectiveness of the delivery industry and accelerate the development of the profession by proposing ways to improve quality, professionalism and ethical behaviour, as well as the introduction of new techniques in delivery service.

This document is based on good practices from the delivery industry. It includes recommendations to use contactless delivery services, based on research and the experience of a wide range of delivery platforms, merchants, couriers, other service providers and their consumers.

This guidance in this document is written from the perspective of couriers. It applies to all couriers, whoever they are employed by, including delivery platforms, retailers and restaurants.

This document focuses only on the delivery service for material objects. It applies to couriers, consumers and merchants, not to the delivery platform internal management.

This document supports the implementation of the United Nations Sustainable Development Goals SDG3 (Good Health and Well-Being), SDG8 (Decent Work and Economic Growth), SDG11 (Sustainable Cities and Communities) and SDG12 (Responsible Consumption and Production).

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Guidelines for contactless delivery services

1 Scope

This document provides general guidance on issues to be considered in standards related to contactless delivery services. It covers general principles, roles and responsibilities, delivery methods, service processes, quality control and improvements to be put in place to execute contactless delivery services.

This document applies to

- instant delivery, which generally applies to the retail, catering and medical sectors (including online food delivery, grocery delivery and medical supplies delivery); and
- last-mile delivery with intermediate transfer, which generally applies to express and e-commerce fields (referring to the last-mile delivery of parcels).

This document does not apply to cold chain logistics.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <https://www.electropedia.org/>

3.1

courier

member of the service personnel who accepts and checks *consumer* (3.10) *orders* (3.4) through the delivery platform or the *merchant* (3.7) and who deposits the ordered *goods* (3.8) in the designated location

Note 1 to entry: The courier is a delivery person who works for the delivery service platform or the merchant.

3.2

contactless delivery

delivery of *goods* (3.8) to the *consumer* (3.10) or recipient without direct contact or human involvement throughout the delivery process, in order to reduce the risk of occupational exposure of the *courier* (3.1) and to ensure the safety of the consumer and the courier

Note 1 to entry: Delivery without direct contact generally refers to courier delivery.

Note 2 to entry: Delivery without human involvement generally refers to autonomous *last-mile delivery* (3.11).

3.3

instant messaging

communication between two or more people on the internet by means of real-time text messages, files, voice, call and video

**3.4
order**

transaction information or delivery service demand information for online-purchased *goods* (3.8)

**3.5
delivery service provider**

company or organization that provides delivery services

EXAMPLE *Delivery service platform operator* (3.6); *merchant* (3.7) on the delivery service platform; related delivery equipment operator.

**3.6
delivery service platform operator**

organization or legal entity that operates a delivery service platform

**3.7
merchant**

individual or organization that supplies *goods* (3.8) for *consumers* (3.10) online in the instant delivery sector

Note 1 to entry: The merchant can use the delivery service of the platform to deliver the goods to the consumers. It can also deliver the goods to the consumers itself.

Note 2 to entry: For example, the online food delivery segment includes the categories "merchant-to-consumer delivery" and "platform-to-consumer delivery". Merchant-to-consumer delivery means that the merchant will pick up the goods and directly deliver them to the consumer. Platform-to-consumer delivery means that the platform will pick up the goods from the merchant and deliver them to the consumer.

**3.8
goods**

items or materials that, upon the placement of a purchase *order* (3.4), are being manufactured, processed, handled or transported within the supply chain for delivery to a *consumer* (3.10)

[SOURCE: ISO 28001:2007, 3.11, modified]

**3.9
smart locker**

self-service equipment located in a publicly accessible area, used by the *delivery service provider* (3.5) to deposit *goods* (3.8) or *parcels* (3.12) and accessible to the *consumer* (3.10) to take collection of the goods or parcels

Note 1 to entry: Smart lockers generally include smart parcel lockers and smart food lockers.

Note 2 to entry: A smart food locker is an intelligent service facility that provides short-term access services for food and catering in the context of online food delivery.

**3.10
consumer**

person who initiates the delivery service *order* (3.4) request to the platform or the *merchant* (3.7) and who receives the order

**3.11
last-mile delivery**

final step in the journey of *goods* (3.8) from the *distribution location* (3.13) to the *consumer* (3.10)

**3.12
parcel**

physical package that is mailed or shipped

3.13

distribution location

last-mile delivery (3.11) hub that integrates the functions of receiving, temporary storage, distribution and special operations and that ships *goods* (3.8) out to the final destination

4 General principles

4.1 Avoidance of physical contact

Physical contact is avoided between couriers and consumers or people who have potential contact opportunities with couriers when picking up goods from the merchants or in the distribution locations.

4.2 Integrity

Delivery services are conducted in an honest, respectful and courteous manner, taking into account the interests of consumers, and are communicated accurately.

4.3 Capability

Couriers should have received special training for contactless delivery services and should have passed the corresponding assessments.

4.4 Health, safety and environment

The health and safety of consumers and couriers and their environmental expectations are given priority at the operational level.

4.5 Confidentiality and privacy

Personal information should be treated in a confidential manner, respecting the privacy of the consumer. Privacy and data security can be subject to legal requirements.

4.6 Visualization and traceability

Health information and the real-time location information of the courier should be visualized and traceable. Visualization and traceability can be subject to legal requirements.

5 Role and responsibility

5.1 Delivery service platform operator

5.1.1 Delivery service platform operators should offer consumers the option or reminder of contactless service when they place orders and indicate the service procedures and corresponding service prices.

5.1.2 Delivery service platform operators should tell consumers exactly what to expect when their order reaches their designated location, as well as the safety measures the couriers will take to effect contactless delivery. There should be a capability within the platform or an opportunity for consumers to indicate contactless delivery instructions or arrangements.

5.1.3 Delivery service platform operators should have a functional online payment system. Payments may be completed upon confirmation of the order or when the delivery has been made. When it is unavoidable as many societies are still cash-based, there needs to be a payment process which avoids physical contact.

5.1.4 Delivery service platform operators should manage proof of delivery digitally.

5.1.5 Delivery service platform operators should establish facilities and equipment management systems to meet the requirements of contactless delivery services and privacy, safety and health requirements.

5.1.6 Delivery service platform operators should establish a contactless delivery management system in accordance with the requirements of [8.1.1](#).

5.1.7 During epidemics and seasons prone to infectious diseases, consumers should be reminded to use contactless delivery services when accepting orders.

5.2 Merchant

5.2.1 Merchants should have a corresponding contactless delivery service system, including, but not limited to, staff, facilities and equipment, measures and service procedures.

5.2.2 The person who handles food for delivery should meet the local corresponding health requirements.

5.2.3 Merchants should give proper training to their courier to enable them to communicate seamlessly with consumers and educate them about the importance of following the guidelines of contactless delivery in the best interest of themselves and consumers.

5.2.4 Packing requirement for goods should depend on both long distance and short distance to avoid risk of damaging and contamination.

5.3 Courier

5.3.1 Couriers should be aware of health requirements concerning the hygiene of food handlers, the use of personal protective equipment (PPE) when delivering the goods, including regular hand cleaning and sanitising) and the proper wearing of gloves and a face mask during the pandemic. Health and security can be subject to legal requirements.

5.3.2 Couriers should receive special training on contactless delivery services and pass corresponding assessments.

5.3.3 Couriers should perform health monitoring before delivery and should record body temperature for each delivery.

5.4 Related delivery equipment operator

Relevant delivery equipment operators should obtain corresponding business licenses.

6 Delivery methods

6.1 General

The delivery service provider should choose the appropriate delivery method based on consumers' requirements, according to the characteristics of each delivery method, combined with factors such as the type of goods, delivery distance and delivery location.

6.2 Courier delivery

6.2.1 Depending on consumer requirements, after communicating with consumers, the couriers should deposit the goods in an agreed designated location, so that goods can then be picked up by consumers themselves.

6.2.2 There are two types of designated locations:

- doorstep/door, lobby or another pick-up point;
- alternative fulfilment methods, e.g. smart lockers.

NOTE Smart lockers allow goods to be picked up in a dedicated space. Smart lockers can only be opened by consumers with the corresponding order access code. Consumers simply scan the code and the locker will open. Once they take the goods and close the door, the process is complete.

6.3 Autonomous last-mile delivery

6.3.1 There are three scenarios for the autonomous last-mile delivery:

- delivery drones;
- delivery robots;
- driverless or self-driving vehicles.

Autonomous last-mile delivery should follow road or air and safety rules.

6.3.2 Delivery drones deliver goods by air bring down or drop the goods.

6.3.3 Delivery robots, which are equipped with 3D sensors and a camera, use ultra-violet light to disinfect after every trip.

6.3.4 Driverless or self-driving vehicles are artificial intelligence (AI) enabled and operated remotely, passing along main roads or other designated streets.

7 Service process

7.1 Instant delivery

7.1.1 Courier delivery

7.1.1.1 Placement of an order by the consumer

The consumer can directly require a contactless delivery service upon placing an order. The consumer can specify the goods deposit location in the remarks or communicate with the courier to request contactless delivery after the order is accepted and specify the goods deposit location.

Order information should include, but not be limited to, the following:

- delivery service time;
- basic information, e.g. the category, mass and quantity of the goods;
- the geographical location and contact information of the consumers (including order initiators and recipients).

7.1.1.2 Reception and preparation of the order by the merchant

Once the merchant receives the order, the consumer should be notified of the order information.

After receiving the order, the merchant should immediately prepare the order and arrange delivery, as well as adopt safety protection measures for the delivered goods.

If the food is delivered, the merchant should seal the food container or packaging to prevent intentional or accidental opening during the delivery process and meet the requirements of the contactless delivery service system.

7.1.1.3 Acceptance of the order by the courier

After the courier accepts the order delivery information, if the consumer chooses to use contactless delivery, the courier should contact the consumer through instant messaging or telephone to confirm the deposit location of the ordered goods. If the consumer does not choose to use contactless delivery, contact should be made with the consumer to recommend the use of a contactless delivery service and to determine the deposit location of the ordered goods.

After the platform receives the order information from the courier and confirms that the courier's order is valid, it should inform the courier and the consumer of the successful order matching information. The platform should provide the consumer with key information (e.g. the name of the courier, contact information) and related delivery fees and payment methods.

The platform should set up automatic order cancellation rules. For orders that are not answered by merchants or couriers within a certain period, the platform can automatically cancel orders.

7.1.1.4 Collection of the goods by the courier

Couriers should collect the goods at the contactless pickup location designated by the merchant according to the order information and deliver the goods based on the requirements for contactless delivery service after confirming that it is correct.

7.1.1.5 Completion of the delivery by the courier

The courier can inform the consumer of the upcoming arrival through instant messaging.

The courier should put the goods in the location designated by the consumer and inform the consumer by instant messaging or telephone that the delivery has been completed. The courier should advise the consumer to collect the goods as soon as possible.

The courier should stand at least 2 m away from the goods when waiting for the consumer to pick up the goods.

The courier should use instant messaging to take photos containing the goods and clarify the location information of the goods. The courier should send the photos to consumers to inform and confirm the delivery of the goods.

If a smart locker is used, after the goods are put in the smart locker, the courier should immediately send the pick-up information (including any smart locker access code) to the consumer via text or instant message.

7.1.1.6 Reception of the goods by the consumer

After being notified by the courier that the goods have been deposited, the consumer goes to the designated location to pick them up. This completes the delivery service.

NOTE 1 [Annex A](#) provides examples of the contactless delivery service process.

NOTE 2 For online food delivery, [Figure A.2](#) illustrates the specific service process when using smart food lockers.

7.1.2 Autonomous last-mile delivery

7.1.2.1 After communicating with consumers, the delivery service provider should confirm the delivery time and delivery location with consumers who choose to use autonomous last-mile delivery.

7.1.2.2 The relevant operators should load the goods or parcel(s) that need to be delivered, advise the consumer of the start of the delivery of the order and indicate the estimated delivery time and location.

7.1.2.3 Autonomous delivery vehicles deliver goods to the designated location via the established route and inform the consumer of their arrival.

7.1.2.4 The consumer picks up the goods at the designated location.

7.1.2.5 The autonomous delivery vehicles return via the established route. This completes the delivery service.

7.2 Last-mile delivery with intermediate transfer

7.2.1 Courier delivery

After receiving the delivery order, the courier should go to the distribution station to pick up the parcel(s). The courier should avoid direct contact with the driver and the staff at the distribution station. The delivery should be completed in accordance with [7.1.1.3](#) to [7.1.1.6](#).

7.2.2 Autonomous last-mile delivery

The process is the same as in [7.1.2](#).

8 Quality control and improvement

8.1 Delivery platform

8.1.1 Quality control system

The platform should establish a complete quality control system to guarantee courier service quality, including, but not limited to, the following:

- couriers management (e.g. courier tracking, operation guidance and training);
- daily order completion monitoring;
- unexpected abnormal data monitoring;
- project implementation control;
- risk management and data control;
- key performance indicator management;
- sanitization of the package before deposit in the locker.

8.1.2 Information service and protection

8.1.2.1 The platform should have information service functions supporting the implementation of a contactless delivery service. These functions should include, but not be limited to, the following:

- selection of delivery method;
- tips for contactless delivery;
- settings of remarks column;
- instant messaging;
- confirmation of delivery completion.

8.1.2.2 An information security protection system should be established to strengthen the protection of personal information security and privacy.

8.1.3 Intelligent devices

The platform should have facilities and equipment to meet the demand for contactless delivery service for couriers and consumers (e.g. intelligent dining cabinets, containers, driverless or self-driving vehicles, drones and other intelligent devices). The facilities and equipment should be properly selected and used as required.

8.1.4 Ongoing evaluation and improvement

There should be a management system to handle complaints from consumers and couriers, on the premise of safeguarding the interests of both parties. Further improvement should be made on the basis of feedback from both parties after handling.

8.1.5 Exception handling

Handling methods for exceptions (e.g. for damaged, lost and incorrect delivery of the goods) include, but are not limited to, the following:

- corresponding processing procedures, mechanisms and guarantee measures;
- assistance of the consumer service department in contacting the courier for confirmation;
- for related issues such as product loss and incorrect delivery, provision of compensation by the platform;
- establishing a safeguard mechanism for the rights and interests of consumers, couriers, distributors and merchants.

8.1.6 Visualization and traceability

The following tools can be used to assist in the visualization and traceability of the health and safety process.

- Merchant safety cards: The health information of commodity contacts (including packers, couriers, etc.) is recorded on the merchant safety card.
- Courier safety cards: The courier safety card shows the body temperature of the courier and the disinfection information of the delivery equipment.

Visualization and traceability can be subject to legal requirements.

8.2 Couriers

8.2.1 Service specification

Couriers should comply with the management and control requirements for the integrity of goods, the punctuality and accuracy of delivery, and standard operation during the stages of the contactless delivery service on the platform.

8.2.2 Service method

8.2.2.1 Couriers and consumers should agree on the service method on the platform. Couriers should actively recommend consumers to use contactless delivery services.

8.2.2.2 Couriers should clean and disinfect the delivery boxes or bags before going to work every day. Couriers should clean delivery boxes or bags in time after contamination and disinfect if necessary. If an infectious disease epidemic occurs, the frequency of cleaning and disinfection should be increased.

8.2.3 Emergency response

During the delivery process, in case of unexpected situations (e.g. community closure, road blocking), after taking self-protection measures, the courier should immediately suspend the delivery and contact the head of the distribution station and consumer service department, in order to confirm whether to terminate or continue the delivery task, depending on the actual situation.

Annex A
(informative)

Examples of contactless delivery service processes

A.1 General service process of instant delivery

Figure A.1 shows an example of a contactless delivery service process delivered by a courier in instant delivery.

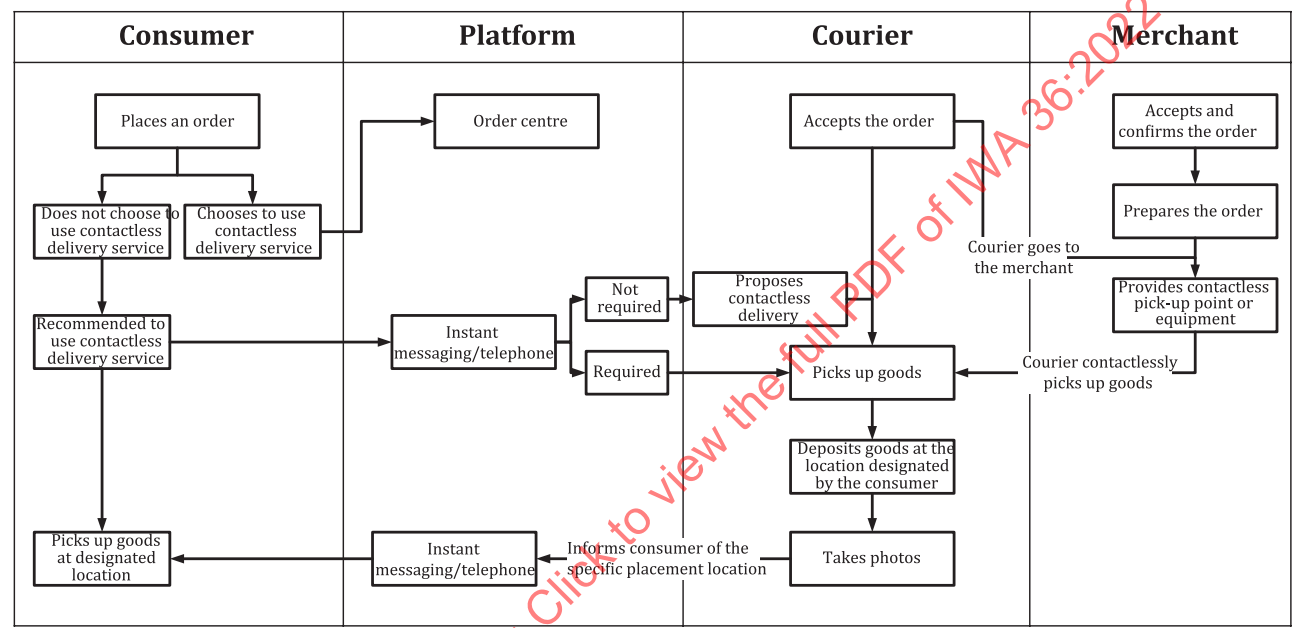


Figure A.1 — Example of general service process of instant delivery

A.2 Service process using a smart food locker

Figure A.2 shows an example of a contactless delivery service process that uses a smart food locker in online food delivery.

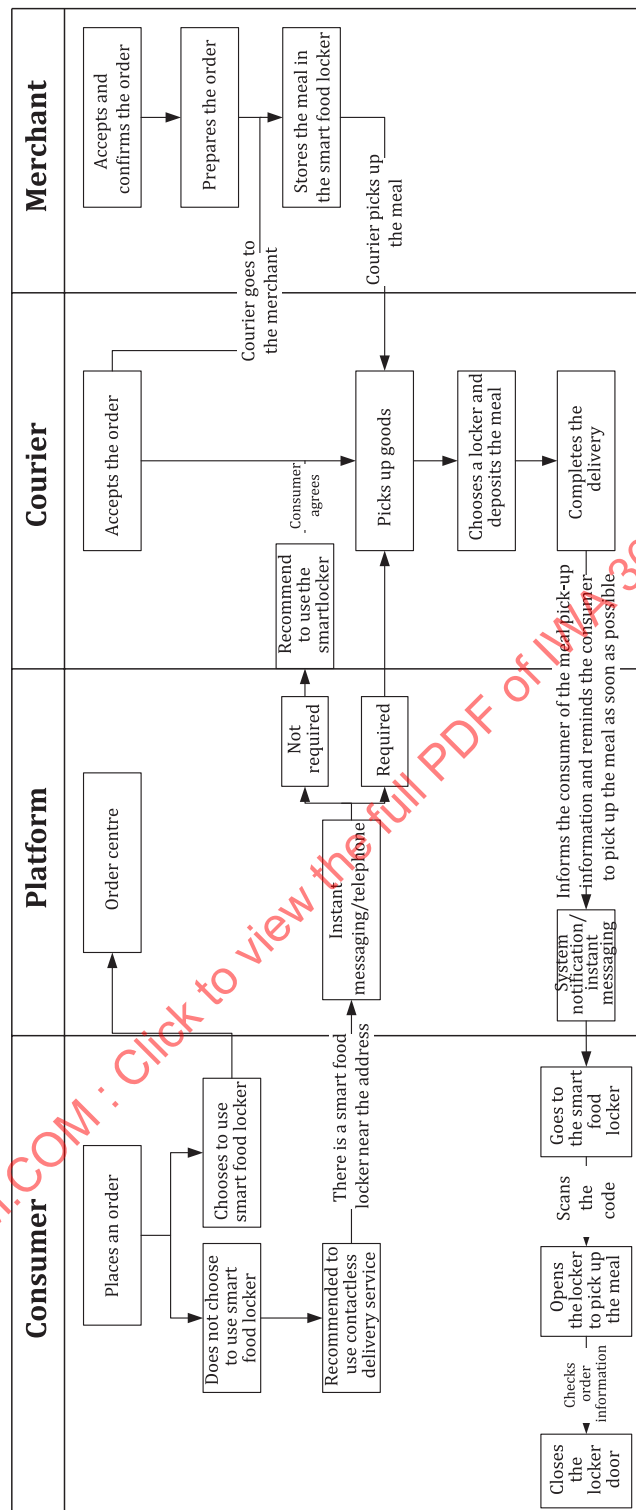


Figure A.2 — Example of service process using a smart food locker