GS1 Model for Supply Chain Processes in Healthcare

Part II - eCom Processes

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1.	10 November 2014	J. Eriksson	Approved by eballot
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Table of Contents

Management Summary

Not applicable.

1. Introduction

This document is part of a documentation set describing a model for harmonised and streamlined business processes to be used by the participants in the healthcare supply chain. The documentation set consists of two documents. This document describes the eCom processes of the model. The other document, "*GS1 Model for Supply Chain Management in Healthcare, Part I – Framework",* describes the framework of the model.

The audience for this document are:

- Experts from business operations where the eCom solutions are implemented, who can use the document to support the identification of changes to be made to those operations.
- Systems developers who will modify business systems, applications and other software.

The business processes are clearly and completely described in this document together with the specifications.

The specifications state what information should be included in the electronic business documents exchanged between business systems. This document describes how the business documents are used in the business process and it provides the information needed to implement and use the business process.

The descriptions of the business processes follow a set of rules that describe how business processes are developed and managed. This means that the documentation is consistent and coherent and that similar business requirements are described in the same manner in all business processes.

2. Business Processes

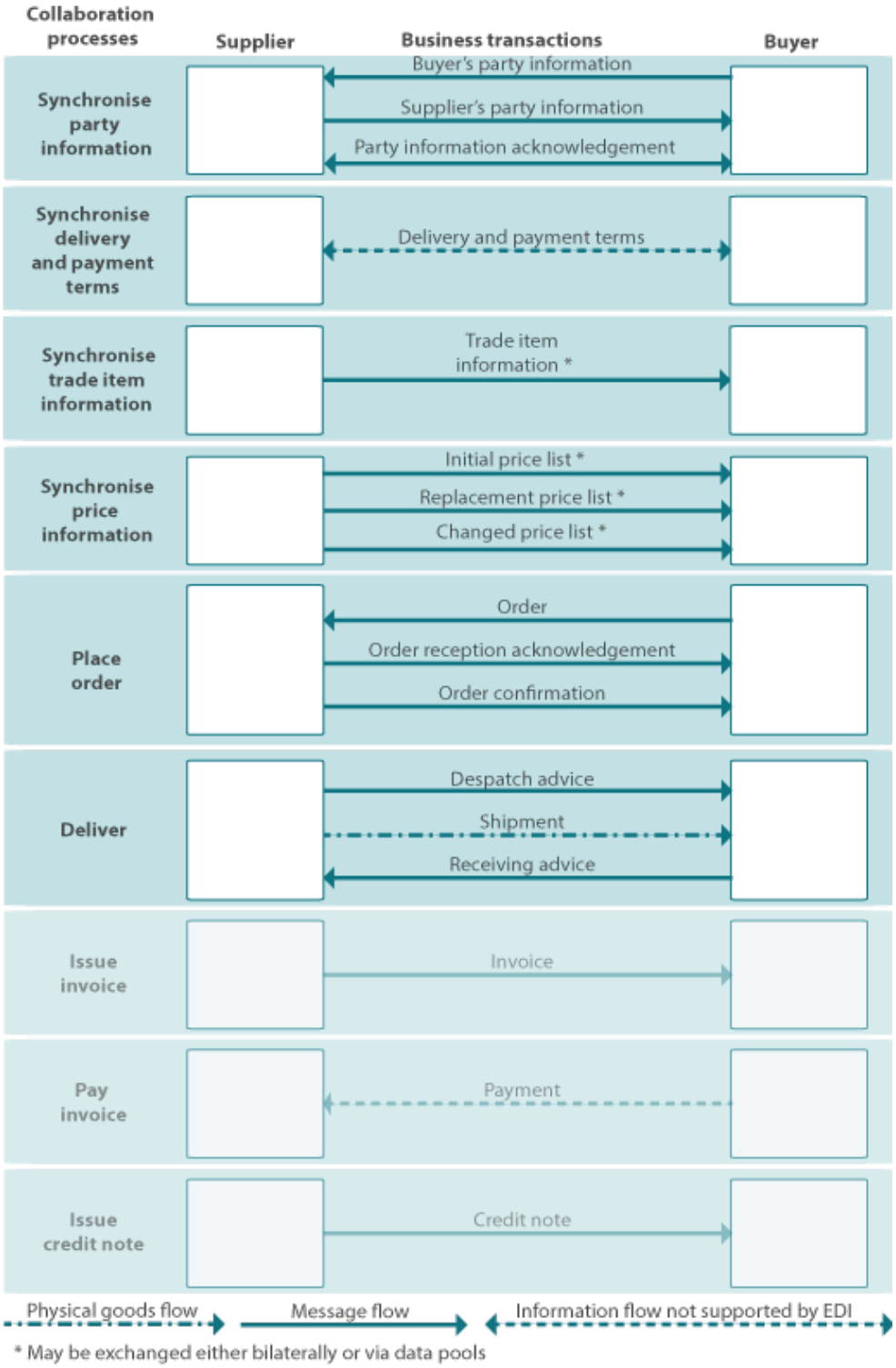
This document describes the Order to cash business process used in the healthcare sector. Other business processes, such as Vendor Managed Inventory (VMI) and Consignment, will be dealt with in phase two of the eCom healthcare harmonisation project.

The Order to cash business process is described briefly below. In chapter 3 the business process is described in detail.

2.1. Order to Cash

The figure shows the business transactions that are exchanged between the supplier and the buyer during the Order to cash business process.

Figure 2-1 Order to cash business process (greyish sections to be addressed in phase two)



The process starts with the parties exchanging master data:

- Party information, such as address and Global Location Number (GLN);
- Delivery and payment terms;
- Trade item information, such as dimensions, packaging type and Global Trade Item Number (GTIN). The trade item information can be exchanged either bilaterally or via data pools.
- Price information. The price information can be exchanged either bilaterally or via data pools.

An ordering and invoicing pre-condition for both parties involved is to have identical, correct and up to date master data.

Prices and trade item information, together with other master data, is used as a basis when the buyer creates an order. The supplier can respond with an order reception acknowledgement to acknowledge receipt of the order, or with an order confirmation to confirm that the supplier has accepted the order. If the supplier cannot deliver the ordered items, an order confirmation with changes must be sent.

When the ordered items have been picked and are ready for shipment the supplier can send a despatch advice to the buyer. This specifies exactly which items are being sent and contains information such as the items' expiry date, serial number and batch number. After receiving the goods the buyer can send the supplier a receiving advice if the parties have agreed on such arrangement.

When the goods have been delivered the supplier sends an invoice to the buyer. In order to carry out invoice reconciliation automatically, all content must be linked back to master data, order, order reception acknowledgement, order confirmation and despatch advice.

The process ends with the buyer paying the invoice. If there were errors in the invoice, these can be corrected with a credit note. (The invoicing process will be addressed in the second phase of the eCom Healthcare Harmonisation project).

2.2. Other business processes

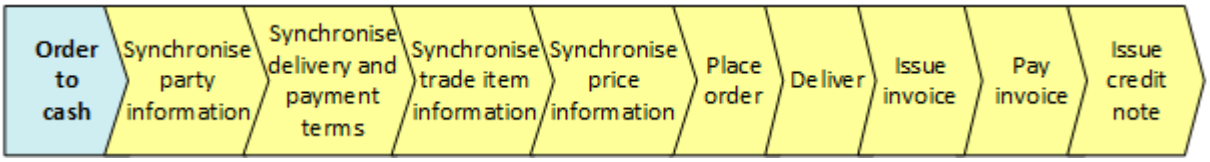
Other business processes, such as Vendor Managed Inventory (VMI) and Consignment, will be dealt with in phase two of the eCom healthcare harmonisation project.

3. The collaboration processes

The model for describing a business process as used in this document is based on UN/CEFACT Modelling Methodology (see Appendix A: Describing a business process). In the model a business process is divided into collaboration processes. Each collaboration process describes how the trading partners interact and exchange information within a certain area, for example the area of delivering ordered goods.

The figure below shows the Order to cash business process and its collaboration processes (yellow arrows).

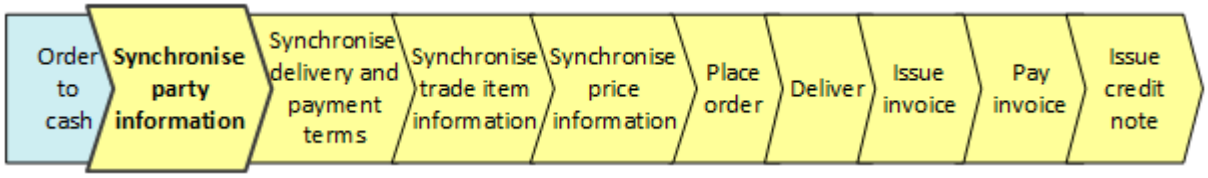
Figure 3-1 Summary of Order to cash and its collaboration processes



The following sections describe how the parties should interact within each collaboration process in order to obtain an efficient business process and achieve as many business benefits as possible in their business.

3.1. Synchronise party information

3.1.1. Scope



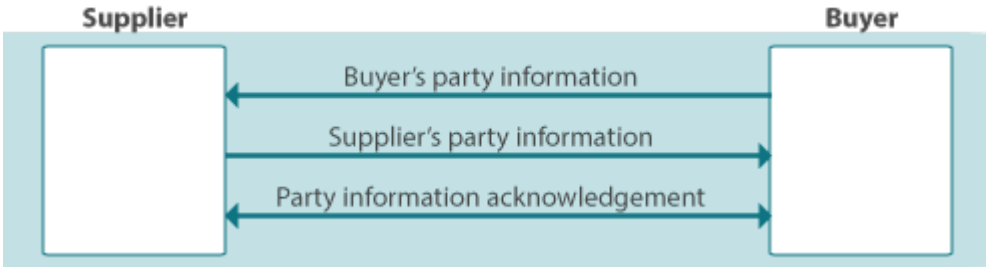
'Synchronise party information' includes the processes by which the buyer and supplier synchronise contact information such as name, address, company number, tax registration number, tax status declaration and account number.

An ordering, delivery and invoicing precondition for both parties involved in the process is to have exactly identical, correct and up to date party information.

In addition to information about the buyer and supplier, details of other roles within each organisation can be exchanged. These might include shipper, if the goods are not shipped from the supplier, or invoice recipient, if the invoice should be sent to other than the buyer's main address.

3.1.2. Scenario

Figure 3-2 Scenario - Synchronise party information



The process starts when the parties have established a contract/agreement. Both the supplier and buyer send party information to the other. The recipient of a party information message can send a confirmation that the message has been received

Both parties can, during the contract period, if required:

- Send information on additional party roles.
- Advice that information about a party role should be changed, for example a new address for an invoice recipient.
- Advice that a previously transmitted party role and its associated data should be deleted from the other party's file.

3.1.2.1. Initial conditions

For the collaboration process to work in the best way, the following conditions must be fulfilled before the process starts:

1. A business agreement has been established between buyer and supplier.
2. Both parties have received by mail, fax or otherwise the other party's principal GS1 Global Location Number (GLN).
3. Both parties have analysed roles and responsibilities within their own organisation. This means being clear who is buyer, goods recipient, invoice recipient, invoicee, etc.
4. Both parties have a file of contracting parties and delivery addresses. Each such address must have a GLN with associated contact information.

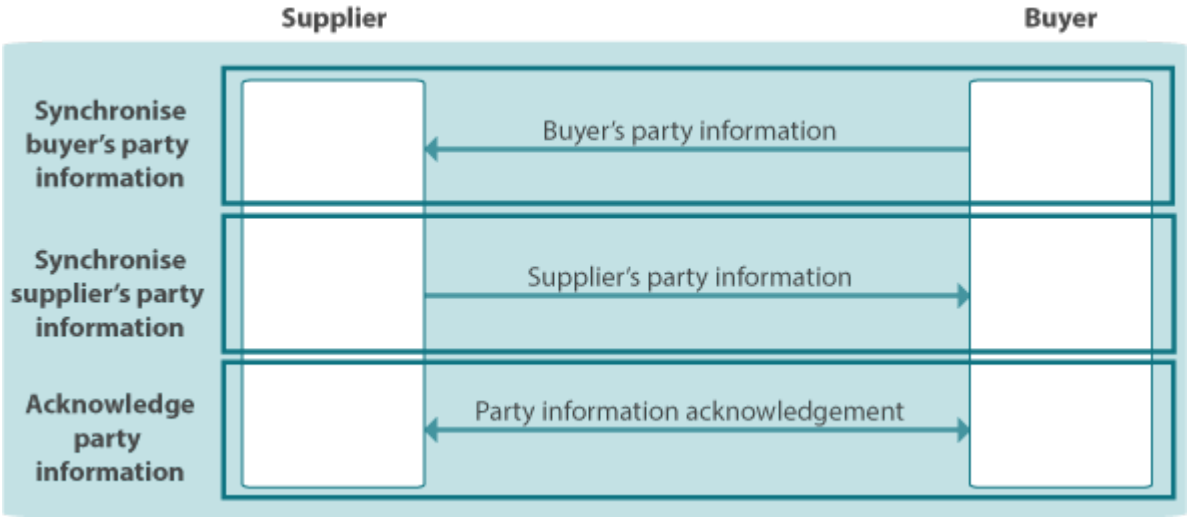
3.1.2.2. Termination conditions

The process runs until the following condition is satisfied:

- The contract has terminated.

3.1.3. Detailed description of Synchronise party information

This chapter provides a detailed description of how “Synchronise party information” is implemented.



The chapter is divided into the following sections:

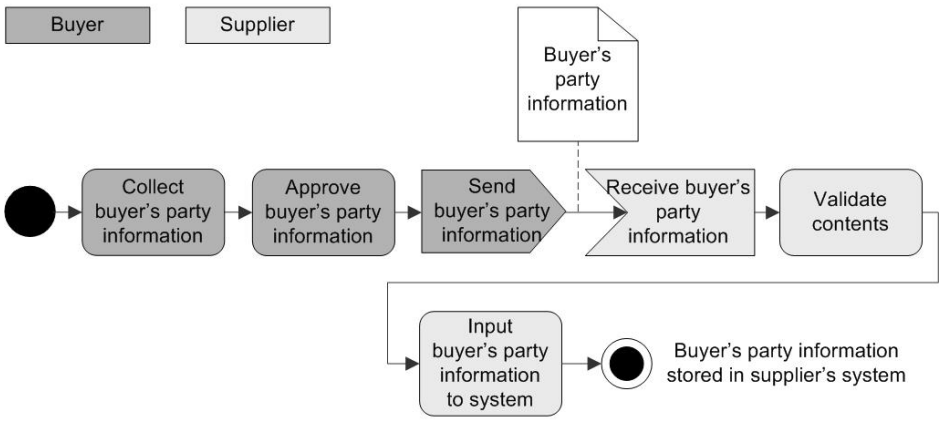
- 3.1.3.1 Synchronise buyer's party information describes how the buyer party information is sent by the buyer and received by the supplier.
- 3.1.3.2 Synchronise supplier's party information describes how the supplier party information is sent by the supplier and received by the buyer.
- 3.1.3.3 Acknowledge party information describes how an acknowledgement is sent to acknowledge receipt of party information.

3.1.3.1. Synchronise buyer's party information

The buyer may send business document specification *Buyer's party information* to the supplier with the following data:

- Contact information for party roles to be added to the supplier's system
- Changes to previously transmitted party information, for example that the buyer has changed his address. In addition to changing existing information, a change may also be used to add information for a given role. For example, if the supplier has already received information about the buyer's address, contact person, etc. and the buyer wishes to add a telephone number.
- Roles, for example a goods recipient, that are no longer to be used. The entire record, i.e. all contact information, for this role is deleted (deactivated) in the supplier's system.

Figure 3-3 Buyer's and supplier's steps when synchronising buyer's party information



The steps that the parties should take before the business document *Buyer's party information* is sent and after it has been received are shown in Figure 3-3 and described below.

3.1.3.1.1. Collect buyer's party information

The buyer identifies which items of party information should be sent to the other party. It is essential that the various party roles in the company have been defined and that the individuals responsible have been identified. The roles for which contact information can be sent in this document exchange are:

- Buyer
- Invoicee
- Invoice recipient

- Consignee
- Delivery party
- Authorised orderer

The business document specification *Buyer's party information* shows which information is included in the business document, se chapter 3.1.4.1 Buyer's party information for an overview.

3.1.3.1.2. Approve, send and receive buyer's party information

The party information must be verified and approved in order to secure that the party information is in accordance with the agreement.

When the party information has been approved, it is sent to the supplier. In those cases where the parties have agreed that the recipient of a party information document shall acknowledge receipt, the buyer waits for an acknowledgement document. Read about receipt of business documents in Appendix B: Receipt of business document and exception handling.

3.1.3.1.3. Validate contents of buyer's party information

Once the buyer's party information has been received by the supplier's system, the following validations of the content of the business document should be made:

1. When the document concerns transmission of party information for a new party role it must be checked that the GLN is not already registered in the supplier's system. This is to ensure that several sets of information are not associated with the same GLN.
2. When the document is about a change or deletion of previously transmitted party information it must be checked that the GLNs sent in the party information are already input and active.

Read about exception handling when validating content in Appendix B: Receipt of business document and exception handling.

3.1.3.1.4. Input buyer's party information to system

If the business document validates correctly, the information is stored in the supplier's system for further use.

When previously transmitted party information is to be changed, the old information which is to be replaced should be made inactive but saved for traceability purposes.

When previously transmitted party information is to be deleted, information associated with the GLN should be made inactive. Data which is legally required for accounting must be saved and archived (e.g. buyer's name, tax registration number, etc.) based on each country/region regulations.

3.1.3.1.5. Next

If the parties have agreed to use acknowledgements, the next step is for the supplier to send an acknowledgement of receipt of party information to the buyer. See chapter 3.1.3.3 Acknowledge party information.

Throughout the contract period the buyer may send updated party information to the supplier.

3.1.3.2. Synchronise supplier's party information

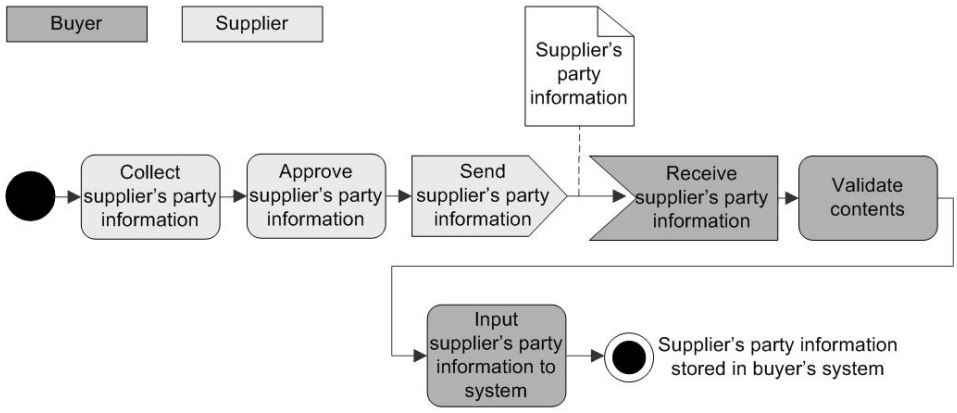
The supplier may send Business document specification *Supplier's party information* to the buyer with the following data:

- Contact information for party roles to be added to the buyer's system.

- Changes to previously transmitted party information, for example that the supplier has changed his address. In addition to changing existing information, a change may also be used to add information for a given role. For example, if the buyer has already received information about the supplier's address, contact person, etc. and the supplier wishes to add a telephone number.
- Roles that are no longer to be used. The entire record, i.e. all contact information, for this role is deleted (deactivated) in the buyer's system.

The document exchange includes the same steps as *Synchronise buyer's party information*, with the roles reversed.

Figure 3-4 Buyer's and supplier's steps when synchronising supplier's party information



The steps that the parties should take before the business document *Supplier's party information* is sent after it has been received are described below.

3.1.3.2.1. Collect supplier's party information

The supplier identifies which items of party information should be sent to the other party. It is essential that the various party roles in the company have been defined and that the individuals responsible have been identified. The roles for which contact information can be sent in this document exchange are:

- Supplier
- Shipper
- Payee

Information relevant for the buyer is exchanged.

- When party roles are to be added, all party information relevant for the buyer is exchanged.
- When previously transmitted party information is to be changed, only the party information to be changed is exchanged together with the associated GLN.
- When previously transmitted party information is to be deleted, only the GLNs for the party roles to be deleted are exchanged.

The business document specification *Supplier's party information* shows which information is included in the business document see chapter 3.1.4.2 Supplier's party information for an overview.

3.1.3.2.2. Approve, send and receive supplier's party information

The party information must be verified and approved in order to secure that the party information is in accordance with the agreement.

When the party information has been approved, it is sent to the buyer. In those cases where the parties have agreed that the recipient of a party information document shall acknowledge receipt, the supplier waits for an acknowledgement document. Read about receipt of business documents in Appendix B: Receipt of business document and exception handling.

3.1.3.2.3. Validate contents of supplier's party information

Once the supplier's party information has been received by the buyer's system the following validations of the content of the business document should be made:

1. When the document concerns transmission of party information for a new party role it must be checked that the GLN is not already registered in the buyer's system. This is to ensure that several sets of contact information are not associated with the same GLN.
2. When the document is about a change or deletion of previously transmitted party information it must be checked that the GLNs sent in the party information are already input and active.

Read about exception handling when validating content in Appendix B: Receipt of business document and exception handling.

3.1.3.2.4. Input supplier's party information to system

If the document validates correctly, the information is stored in the buyer's system for further use.

When previously transmitted party information is to be changed, the old information which is to be replaced should be made inactive but saved for traceability purposes.

When previously transmitted party information is to be deleted, information associated with the GLN should be made inactive. Data which is legally required for accounting must be saved and archived (e.g. supplier's name, tax registration number, etc.) based on each country/region regulations.

3.1.3.2.5. Next

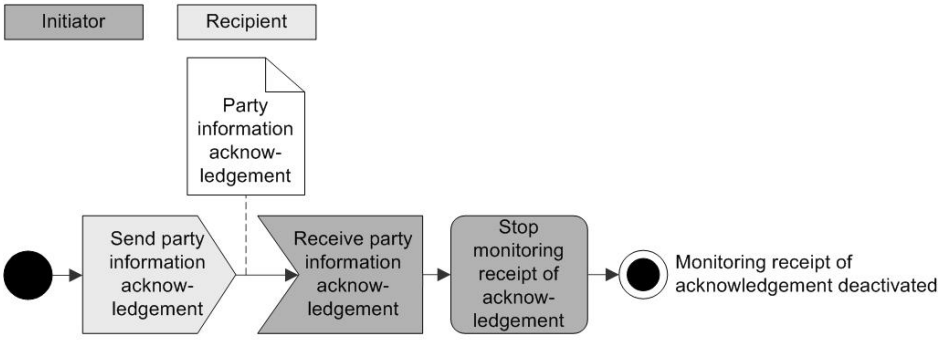
If the parties have agreed to use acknowledgements, the next step is for the buyer to send and acknowledgement of receipt of party information to the supplier. See next chapter *3.1.3.3 Acknowledge party information*.

Throughout the contract period the supplier may send updated party information to the buyer.

3.1.3.3. Acknowledge party information

When a buyer has received business document Supplier's party information, he may send an acknowledgement to the supplier. When a supplier has received business document Buyer's party information, he may send an acknowledgement to the buyer. The acknowledgement is transmitted using business document *Party information acknowledgement*.

Figure 3-5 Initiator's and recipient's steps when transmitting party information acknowledgement



The steps that the parties should take before the business document *Party information acknowledgement* is sent and after it has been received are described below.

3.1.3.3.1. Send and receive party information acknowledgement

The party – buyer or supplier – who has received party information creates and sends the acknowledgement. This confirms that the party information message has been received and that its contents have been processed. The business document specification *Party information acknowledgement* shows which information is included in the business document, see chapter 3.1.4.3 Party information acknowledgement for an overview. Read about receipt of business documents in Appendix B: Receipt of business document and exception handling.

3.1.3.3.2. Stop monitoring receipt of acknowledgement

If the business document validates correctly, the recipient stops monitoring receipt of an acknowledgement.

3.1.3.3.3. Next

Throughout the contract period the parties may send updated party information to each other.

3.1.4. Business document specifications

The following chapters give an overview of the information contained in the business documents used for synchronising party information. They also include clarification of how the business documents should be used for implementation and links to the complete specifications.

3.1.4.1. Buyer's party information

To be addressed in phase two of the eCom healthcare harmonisation project.

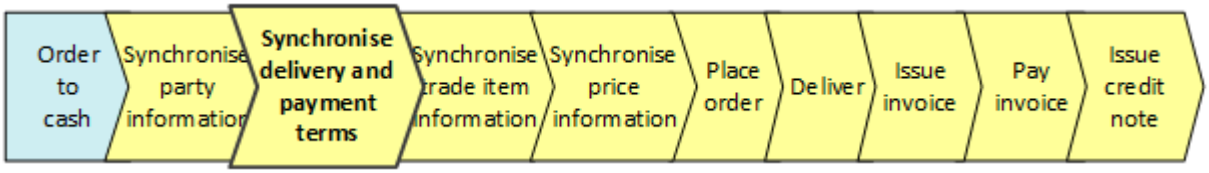
3.1.4.2. Supplier's party information

To be addressed in phase two of the eCom healthcare harmonisation project.

3.1.4.3. Party information acknowledgement

To be addressed in phase two of the eCom healthcare harmonisation project.

3.2. Synchronise delivery and payment terms



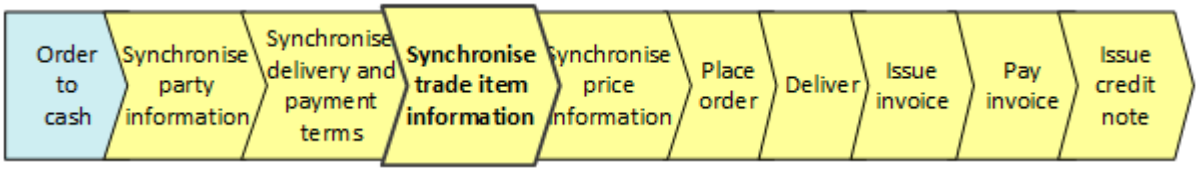
'Synchronise delivery and payment terms' includes the processes by which buyer and supplier synchronise delivery and payment terms. Once the buyer and supplier have concluded a contract they must ensure that delivery and payment terms are entered into their respective business systems.

There are no business document specifications for the transmission of delivery and payment terms. The parties must ensure that all necessary information is exchanged in an appropriate manner. The following points should be covered:

1. How often deliveries are to be made.
2. When the supplier expects to be paid (usually when delivery has been made).
3. Terms of delivery – when responsibility is transferred from the supplier to the buyer.
4. Freight charges.
5. Agreement on technology discount – can apply if an agreed user profile for e-commerce is used.
6. Agreement on invoice discount (to be further elaborated in phase two).
7. Payment discounts – rules for calculation of discounts (to be further elaborated in phase two).
8. Whether or not back-orders are permitted.
9. Conditions under which the supplier can reject an ordered item without offering an alternative delivery date or a substitute item.
10. Whether the supplier can replace an ordered item with another.
11. If partial deliveries are allowed, i.e. the supplier can deliver some items at a later date.
12. If the supplier may deliver later than the buyer's requested delivery date.
13. Methods of payment (to be further elaborated in phase two).
14. Terms of compensation for sub-standard goods.
15. Terms for reimbursement of returnable packaging.
16. Terms for other requests for compensation and how this will be made (credit note).

3.3. Synchronise trade item information

3.3.1. Scope



'Synchronise trade item information' includes the processes by which buyer and supplier synchronise trade item information. It is important that trade item information always be up to date. Some examples of trade item information are: dimensions, packaging type and Global Trade Item Number (GTIN).

3.3.2. Scenarios

The process starts when the supplier sends trade item information to the buyer following the conclusion of a contract between the parties. During the entire contract period the supplier can send updated trade item information to the buyer.

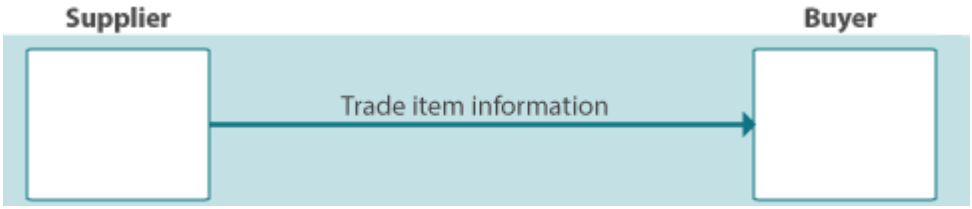
There are two different scenarios for synchronising trade item information:

- Bilateral synchronisation of trade item information;
- Synchronisation of trade item information via a data pool.

Trading partners agree among themselves on the scenario to be used, if necessary incorporating this into a formal agreement.

3.3.2.1. Scenario 1 - Bilateral synchronisation of trade item information

Figure 3-6 Scenario 1 – Bilateral synchronisation of trade item information



Trade item information is exchanged directly between buyer and supplier.

1. When new trade items are added or existing ones amended, the supplier updates the data in his system. He then sends a message to the buyer.
2. The buyer then incorporates the new or amended data into his own system.

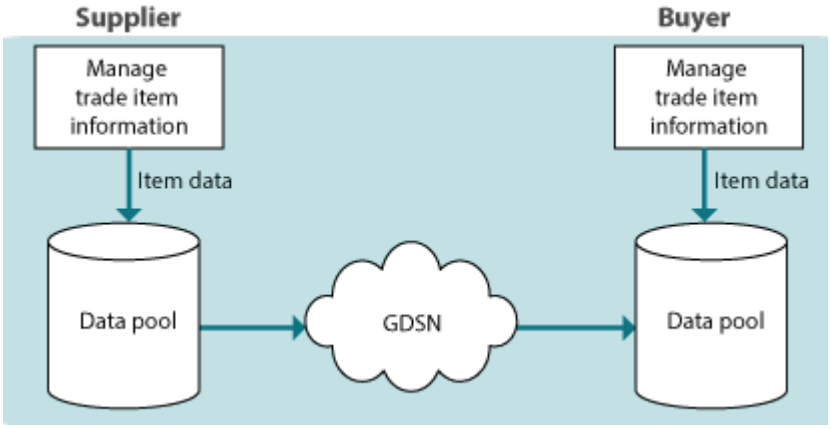
3.3.2.2. Scenario 2 - Synchronisation of trade item information via data pool

Master data is exchanged between buyer and supplier through one or more data pools. A data pool is a service provider who receives data from a source and sends it to the subscribe buyer. The main advantage is that the source only has to supply the neutral master data once (one to many), instead of having to pass it on to each trading partner (many to many) separately. Other advantages are that the chain participants only have to maintain a connection with a single party (the data pool), and that the data pool can perform quality checks on the data supplied.

The figure below illustrates the scenario for the synchronisation of trade item data, where the supplier is the source, and the buyer and supplier work with different data pools.

Note: GS1 offers a standard for connecting data pools, this is the Global Data Synchronization Network (GDSN). See http://www.gs1.org/gdsn.

Figure 3-7 Scenario 2 – Synchronisation of trade item information via data pool



1. When new trade items are added or existing ones amended, the supplier updates the data in his system. He then sends a message to his data pool.
2. The data pool verifies and processes the data before accessing the Global Registry (GDSN) to obtain a list of data pools to which the data in question must be transmitted. A message is then sent to these other data pools.
3. The data pool receives, verifies and processes the message. It then sends a message to those buyers who subscribe to the trade item in question.
4. The buyer then incorporates the data into his system.

Note: A similar scenario can be used for the synchronisation of location data.

3.3.2.3. Initial conditions

To be addressed in phase two of the eCom healthcare harmonisation project.

3.3.2.4. Termination conditions

To be addressed in phase two of the eCom healthcare harmonisation project.

3.3.3. Detailed description of Synchronise trade item information, scenario 1

To be addressed in phase two of the eCom healthcare harmonisation project.

3.3.4. Detailed description of Synchronise trade item information, scenario 2

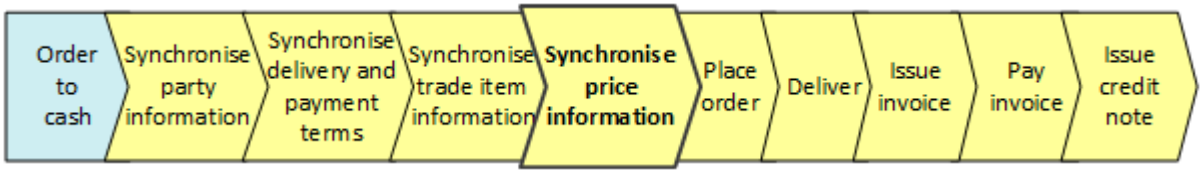
To be addressed in phase two of the eCom healthcare harmonisation project.

3.3.5. Business document specifications

To be addressed in phase two of the eCom healthcare harmonisation project.

3.4. Synchronise price information

3.4.1. Scope



'Synchronise price information' covers the processes by which the supplier keeps the buyer updated on the prices for the contracted selection. The supplier sends price information to the buyer to confirm that both systems have the same information on the contracted selection and prices in their databases. This is a prerequisite for orders and deliveries to work correctly and efficiently and for invoices to be administered and checked automatically.

3.4.2. Scenarios

The process starts when the supplier sends the first price list to the buyer following the establishment of a contract between the parties. During the entire contract period the supplier can send further price lists to update price information. A price list contains information about item prices and conditions under which any charges or discounts should be calculated and invoiced.

Note that prices in the price lists are only contracted prices. A price list may not be used to send price announcements or proposals.

There are three different types of price list: initial price list, replacement price list and changed price list.

The following applies for the different price list types:

- **Initial price list** is used for the first transmission of contracted prices and conditions following the conclusion of a new contract. When prices or conditions are changed during the contract's validity period, this is communicated using replacement price list and or changed price list, see below.
- **Replacement price list** is used to send information on prices and conditions which have changed since the most recently transmitted price list. Replacement price list contains information on all contracted items and terms - both those which have changed and any which are unchanged since the most recently transmitted price list. The information sent in the previous price list is replaced in its entirety with information in the replacement price list. A replacement price list should always be sent soon after changes have been agreed.
- **Changed price list** is used to send information on prices which have changed since the most recently transmitted price list. Changed price list contains only those items where price information has changed since the most recently transmitted price list. The information sent in the previous price list is updated with information in the changed price list. A changed price list should always be sent soon after changes have been agreed.

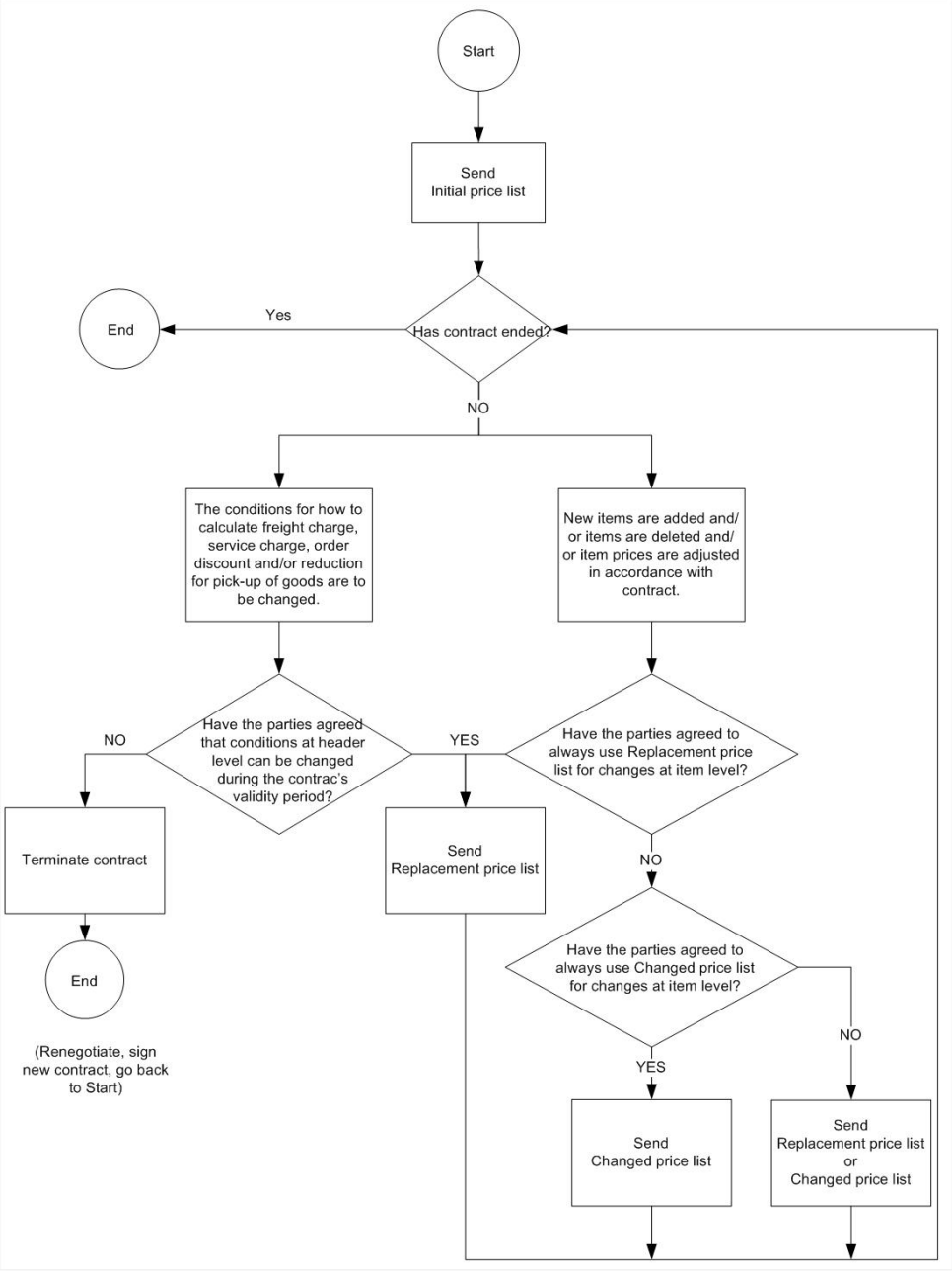
Which of the three types of price list should be used in a business relationship depends partly on what has been agreed between the parties and partly on fixed rules as follows:

1. An initial price list must always be used for the first transmission of contracted prices and conditions following the conclusion of a new contract.
2. The parties must decide which type(s) of price list - replacement price list and/or changed price list - are to be used in the business relationship to send information about changes at the item level.
3. The parties must decide if terms for calculation of charges and discounts can be changed during the contract's validity period.

- If the terms can be changed during the contract's validity period, replacement price list is used to send changed information.
- If the terms cannot be changed during the contract's validity period, the contract must be terminated and a new contract signed in order to change the terms. The new contract information will then be sent using initial price list according to item 1 above.

The flowchart shows which type of price list should be sent according to the items above.

Figure 3-8 Flowchart of process Synchronise price information



There are two different scenarios by which the buyer and supplier can synchronise the price information:

- Bilateral synchronisation of price information;
- Synchronisation of price information via a data pool.

Trading partners agree among themselves on the scenario to be used, if necessary incorporating this into a formal agreement.

3.4.2.1. Scenario 1 – Bilateral synchronisation of price information

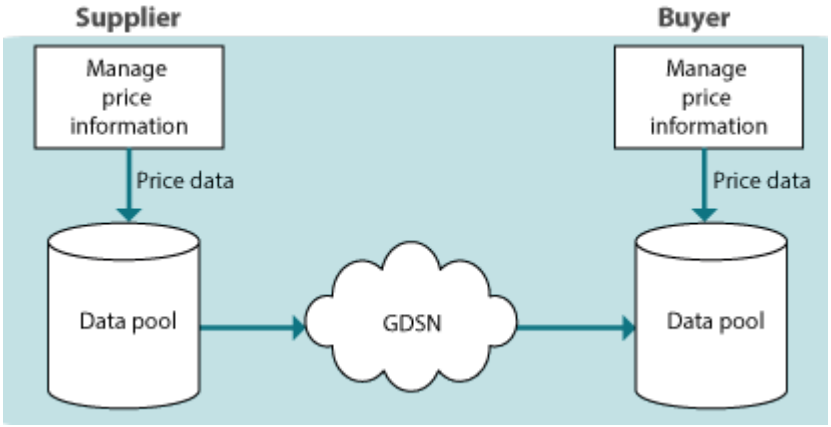
Figure 3-9 Scenario 1 – Bilateral synchronisation of price information

Price information is exchanged directly between buyer and supplier.

1. When price information needs to be updated, the supplier updates the data in his system. He then sends a message to the buyer.
2. The buyer then incorporates the data into his own system.

3.4.2.2. Scenario 2 – Synchronisation of price information via data pool

Figure 3-10 Scenario 2 - Synchronisation of price information via data pool



1. When price information needs to be updated, the supplier updates the data in his system. He then sends a message to his data pool.
2. The data pool verifies and processes the data before accessing the Global Registry (GDSN) to obtain a list of data pools to which the data in question must be transmitted. A message is then sent to these other data pools.
3. The data pool verifies and processes the data before accessing the Global Registry (GDSN) to obtain a list of data pools to which the data in question must be transmitted. The buyer's data pool receives, verifies and processes the message. It then sends a message to those buyers who subscribe to the trade item in question.

4. The buyer then incorporates the data into his system.

3.4.2.3. Initial conditions

For the collaboration process to work in the best way, the following conditions must be fulfilled before the process starts:

1. A business agreement has been established between buyer and supplier.
2. Trade item information for all items in the price list has been previously sent.
3. The parties have agreed which charges and discounts for an order are included in the contract. The following charges and discounts can be included:

   - Freight charge

   - Service charge

   - Order discount

   - Reduction for pick-up of goods
4. In the case where the parties have agreed that freight charge, service charge, order discount and/or reduction for pick-up of goods are included in the contract, they have agreed:

   - The conditions for how these are to be calculated. For example how the freight charge relates to the weight of the items ordered.
   - Whether the conditions for how these are to be calculated can (or cannot) be changed during the contract's validity period.
5. The parties have agreed which type(s) of price list can be used to send changes at the item level from one of the following:

   - Replacement price list

   - Changed price list

   - Replacement price list and Changed price list

   If the parties have agreed that both replacement and changed price list can be used, they should also agree how each should be used, for example for which selection.
6. The parties have agreed on the conditions which allow an item price to be changed, for example changed raw material price or changed exchange rate.
7. The parties have agreed on the conditions for choice of item price to be used when ordering different volumes of an item; full layer, quantity increment for price, small order, etc.
8. The parties have agreed on how frequently price information can be changed at item level.
9. The parties have agreed on how each item should be ordered. For example, should a variable measure item be ordered by each or by weight?
10. The parties have agreed if the prices in the price list apply from order date or delivery date.

3.4.2.4. Termination conditions

The process runs until the following condition is satisfied:

- The contract has terminated.

3.4.2.5. To consider when choosing price list type

As described above, the parties must agree in their business relationship which type(s) of price list should be used to send information about agreed changes at item level: changed price list, replacement price list or a combination of changed and replacement price lists. It can be advantageous if the recipient can handle both replacement and changed price lists. The supplier then has the option to choose replacement or changed price list based on economic aspects, amongst other things.

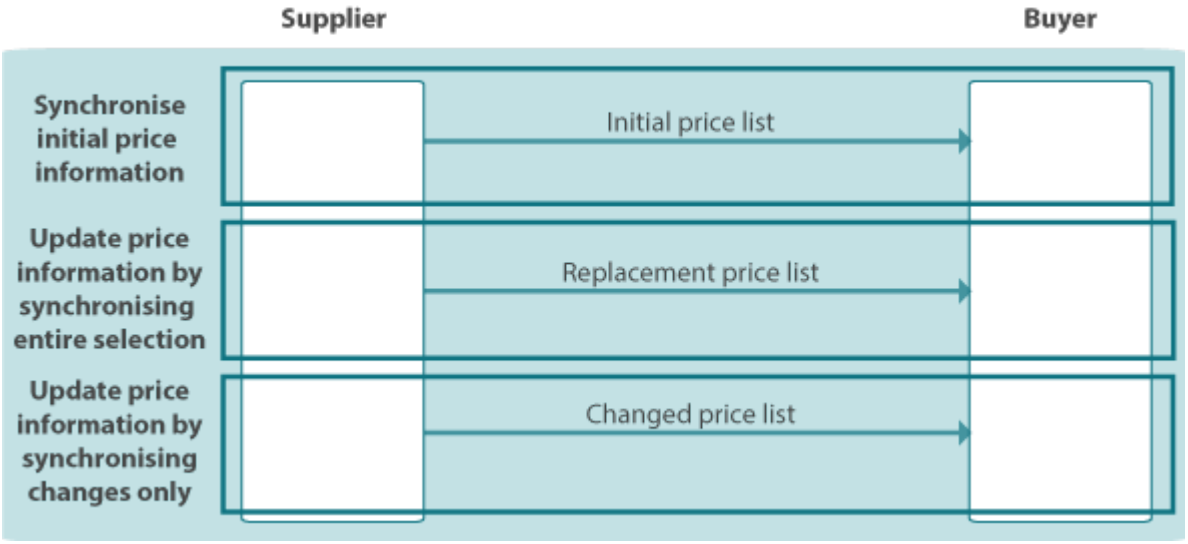
The recipient can provide support in his system which sorts out those things that have changed since the most recently transmitted price list. This makes it easier for the recipient's category managers to check changes in the contracted selection and prices. This applies especially when the supplier has chosen to send replacement price.

3.4.2.6. Essential to identify all items with GTIN

All orderable units of a product should be uniquely identified using GTINs (Global Trade Item Numbers). This is essential for the customer to be able to place correct orders and also to avoid delivery errors and misunderstandings.

3.4.3. Detailed description of Synchronise price information, scenario 1

This chapter provides a detailed description of how 'Synchronise price information' is implemented when the price information is synchronised bilaterally between buyer and supplier.



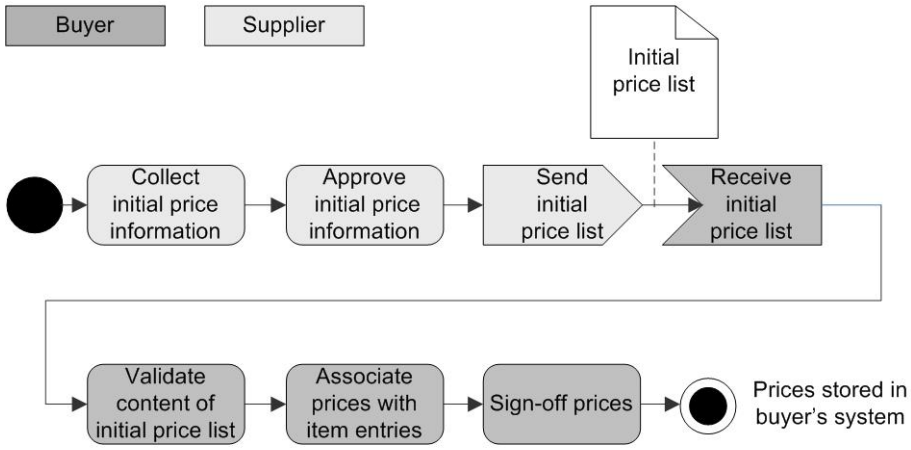
The chapter is divided into the following sections:

- 3.4.3.1 Synchronise initial price information describes how the initial price information following the conclusion of a contract is sent to the buyer.
- 3.4.3.2 Update price information by synchronising entire selection describes how previously sent price information is updated by sending a replacement price list, which contains the entire contracted selection, i.e. information on both changed and unchanged prices is included.
- 3.4.3.3 Update price information by synchronising changes only describes how previously sent price information is updated by sending a changed price list, which contains only information that has changed since the last transmitted price list.

3.4.3.1. Synchronise initial price information

Once the parties have established a contract, the supplier sends the business document *Initial price list* to the buyer. The initial price list contains the price information agreed by the parties in the contract. Initial price list is used only once in a business process in order to send initial price information to the buyer following the conclusion of a contract. To update price information during the contract's validity period, *Replacement price list* and/or *Changed price list* are used instead.

Figure 3-11 Buyer's and supplier's steps when synchronising initial price information



The steps that the parties should take before the business document *Initial price list* is sent and after is has been received are described below.

3.4.3.1.1. Collect and approve price information

The supplier identifies which price information should be sent to the buyer according to the contract.

The information is extracted from the file.

The business document specification *Initial price list* shows which information is included in the business document, see chapter 3.4.5.1 Initial price list for an overview.

The price information must be verified and approved in order to secure that the price information is in accordance with the agreement.

3.4.3.1.2. Send and receive initial price list

When the price information has been approved, it is sent to the buyer. Read about receipt of business documents in Appendix B: Receipt of business document and exception handling.

3.4.3.1.3. Validate contents of initial price list

Once the price information has been received by the buyer's system, the following validations of the content of the business document should be made:

- That prices correspond to those specified in the contract.

Read about exception handling when validating content in Appendix B: Receipt of business document and exception handling.

3.4.3.1.4. Associate prices with item entries

If no errors in the price list are reported from validation, the information is entered in the buyer's system. Each item record includes a reference to the initial price list.

3.4.3.1.5. Sign-off prices

An authorised person approves the transmitted price information. The selection is then made available for ordering. An indication that the information has been checked, approved, and locked against unauthorised changes enables invoices to be processed fully automatically at a later stage.

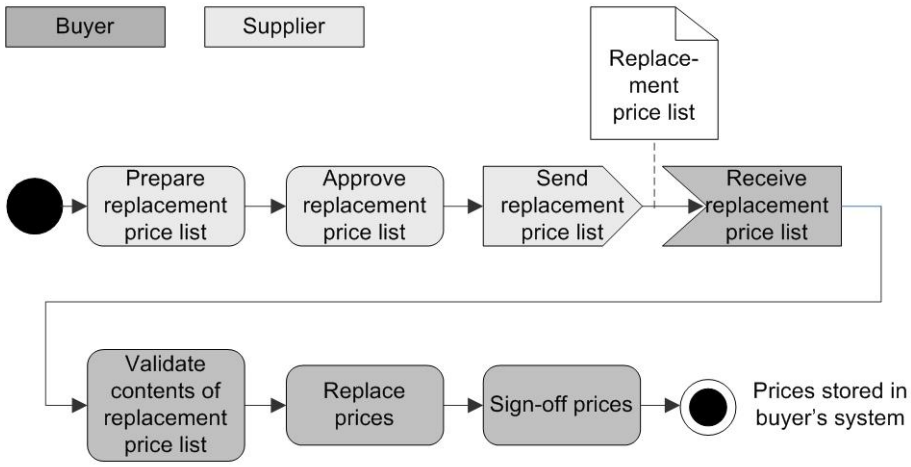
3.4.3.1.6. Next

Throughout the contract period the supplier may send updated price information to the buyer. The supplier does this by sending either a *Replacement price list* or a *Changed price list*. These are described in the following chapters.

3.4.3.2. Update price information by synchronising entire selection

When the price information needs to be updated the supplier may do so by sending a *Replacement price list*. This information replaces the price information previously sent.

Figure 3-12 Buyer's and supplier's steps when synchronising replacement price information



The steps that the parties should take before the business document *Replacement price list* is sent and after it has been received are described below.

3.4.3.2.1. Prepare and approve replacement price list

The supplier identifies which price information should be sent to the buyer. Since a replacement price list completely supersedes any information transmitted previously, the entire contracted selection must be included. This means that a replacement price list contains information on both changed and unchanged prices.

The business document specification *Replacement price list* shows which information is included in the business document, see chapter 3.4.5.2 Replacement price list for an overview.

The price information must be verified and approved in order to secure that the price information is in accordance with the agreement.

3.4.3.2.2. Send and receive replacement price list

When the price information has been approved, it is sent to the buyer. When and how often a replacement price list can be sent is specified in the commercial agreement. Read about receipt of business documents in Appendix B: Receipt of business document and exception handling.

3.4.3.2.3. Validate contents of replacement price list

Once the price information has been received by the buyer's system the following validations of the content of the business document should be carried out:

1. That there is a reference to the immediately preceding pricelist.
2. That the replacement price list has been sent at a time and with a frequency consistent with the agreed terms for price changes.
3. That prices and price changes correspond to those specified in the contract.

Read about exception handling when validating content in Appendix B: Receipt of business document and exception handling.

3.4.3.2.4. Replace prices

If the document validates correctly, the information is input to the buyer's system. For each item in the replacement price list a reference is made to the replacement price list, the previous price list, the contract, the supplier and validity period.

3.4.3.2.5. Sign-off prices

An authorised person approves the transmitted price information. The selection is then made available for ordering. An indication that the information has been checked, approved, and locked against unauthorised changes enables invoices to be processed fully automatically at a later stage.

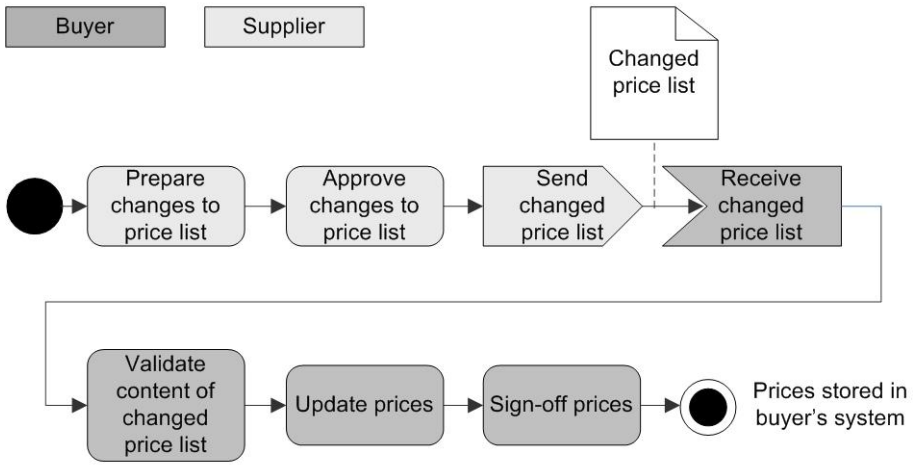
3.4.3.2.6. Next

Throughout the contract period the supplier may send updated price information to the buyer. The supplier does this by sending either another *Replacement price list*, or a *Changed price list*, described in the following chapter.

3.4.3.3. Update price information by synchronising changes only

When the price information needs to be updated the supplier may do so by sending a *Changed price list*. This information updates the price information previously sent. *Changed price list* includes only price information which has changed since the most recently transmitted price information.

Figure 3-13 Buyer's and supplier's steps when synchronising changed price information



The steps that the parties should take before the business document *Changed price list* is sent and after it has been received are described below.

3.4.3.3.1. Prepare and approve price information

The supplier identifies which price information should be sent to the buyer. A changed price list shall only include information on prices which have changed since the last price list was transmitted. The information is extracted from the file.

The business document specification *Changed price list* shows which information is included in the business document, see chapter 3.4.5.3 Changed price list for an overview.

The price information must be verified and approved in order to secure that the price information is in accordance with the agreement.

3.4.3.3.2. Send and receive changed price list

When the price information has been approved, it is sent to the buyer. When and how often a changed price list can be sent is specified in the commercial agreement.

Read about receipt of business documents in Appendix B: Receipt of business document and exception handling.

3.4.3.3.3. Validate contents of changed price list

Once the price information has been received by the buyer's system the following validations of the content of the business document should be carried out:

1. That there is a reference to the immediately preceding pricelist.
2. That the changed price list has been sent at a time and with a frequency consistent with the agreed terms for price changes.
3. That prices and price changes correspond to those specified in the contract.

Read about exception handling when validating content in Appendix B: Receipt of business document and exception handling.

3.4.3.3.4. Update prices

If the document validates correctly, the information is input to the buyer's system. Each updated item record should include a reference to the changed price list, the previous price list, the contract, the supplier and validity period. This also applies to non-contracted items included in the same price list.

3.4.3.3.5. Sign-off prices

An authorised person approves the transmitted price information. The selection is then made available for ordering. An indication that the information has been checked, approved, and locked against unauthorised changes enables invoices to be processed fully automatically at a later stage.

3.4.3.3.6. Next

Throughout the contract period the supplier may send updated price information to the buyer. This is done by sending either another *Changed price list*, or a *Replacement price list*, described in the previous chapter.

3.4.4. Detailed description of Synchronise price information, scenario 2

This chapter provides a detailed description of how 'Synchronise price information' is implemented when the price information is synchronised via a data pool.

To be addressed in phase two of the eCom healthcare harmonisation project.

3.4.5. Business document specifications

The following chapters give an overview of the information contained in the business documents used for synchronising price information. They also include clarification of how the business documents should be used for implementation and links to the complete specifications.

3.4.5.1. Initial price list

To be addressed in phase two of the eCom healthcare harmonisation project.

3.4.5.2. Replacement price list

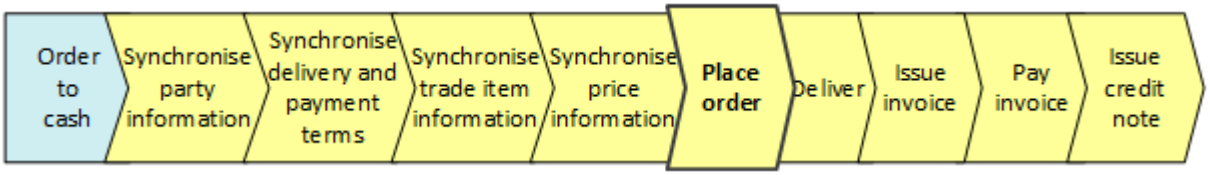
To be addressed in phase two of the eCom healthcare harmonisation project.

3.4.5.3. Changed price list

To be addressed in phase two of the eCom healthcare harmonisation project.

3.5. Place order

3.5.1. Scope



'Place order' includes the processes by which buyer and supplier agree what should be delivered and on what terms, using order and order response.

There are different types of orders: purchase order, rush order, blanket order, call-off order. In this document, 'order' is used as a generic term for all order types.

Purchase order: A purchase order is issued by a participant in the healthcare supply chain, such as a clinic within a hospital, to initiate the purchase of articles, materials or services. The order must be used according to a pre-agreed contract between the buyer and supplier.

Rush order: A rush order is used for urgent ordering. A rush order can be used if the buyer wants the supplier to prioritise the order. The rush order must be used according to a contract between the buyer and supplier.

Blanket order: A blanket order is a term contract or basic agreement between a buyer and a supplier. It is often used by the business partners to address recurring purchases of consumable supplies or services, for a specific period of time. A blanket order is issued to support an existing contract.

The quantities of each trade item specified in the blanket order are delivered according to call-off orders issued during the contract period. A blanket order cannot be used to order the delivery of trade items. A call-off order must be used for this purpose plus it must refer to the underlying blanket order.

Call off order (synonym: release order): A call-off order is used to order the delivery of trade items referring either to a previous blanket order or to the agreement on trade items and prices.

3.5.2. Scenarios

Within the Place order collaboration process, there are four different order scenarios. The parties can agree to use one of the following combinations of order and order response:

- Scenario 1 - Order.
- Scenario 2 - Order and Order reception acknowledgement.
- Scenario 3 - Order and Order confirmation.
- Scenario 4 - Order, Order reception acknowledgement and Order confirmation.

Trading partners agree among themselves on the scenario to be used, if necessary incorporating this into an interoperation agreement.

An **Order reception acknowledgement** is sent directly after the supplier has received an Order. The Order reception acknowledgement informs the buyer either that the Order has been successfully received by the supplier and will be processed further, or that the Order has been rejected and that the supplier will not process it further. Whether the Order is successfully received or rejected depends on the outcome of the validation of the Order. The validation checks, for example, that the order number has not been used previously by the buyer and that party information for the buyer and supplier is correct. The validation does not check if the supplier can deliver as ordered. This is checked at a later stage.

An **Order confirmation** is sent when the supplier's stock situation has been assessed, that is, when the supplier knows to what extent the order can be delivered. The supplier can confirm the entire Order and commits to delivering as ordered. The supplier can also confirm the Order with changes and commits to delivering with certain changes in the Order, such as a different delivery date. The parties agree in a pre-established contract what changes are permitted. If the supplier is unable to deliver anything, the Order confirmation can be used to reject the entire Order.

3.5.2.1. Scenario 1 – Order

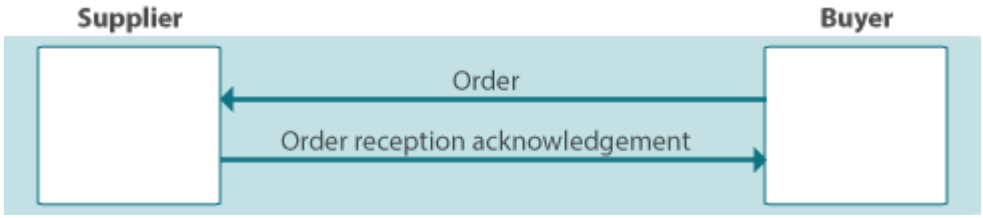
Figure 3-14 Scenario 1 – Order

1. The buyer places an Order with the supplier.
2. The supplier validates the content of the Order document.
3. Any exceptions arising from validation are handled by the supplier contacting the buyer by telephone, fax, e-mail or website.
4. The supplier compares the requested order quantity with the available inventory level.
5. Any exceptions arising from the assessment of the stock situation are handled by the supplier contacting the buyer by telephone, fax, e-mail or website.

   Read the following sections: 3.5.3.1 Create Order, 3.5.3.3 Check stock levels

3.5.2.2. Scenario 2 - Order and Order reception acknowledgement

Figure 3-15 Scenario 2 – Order and Order reception acknowledgement

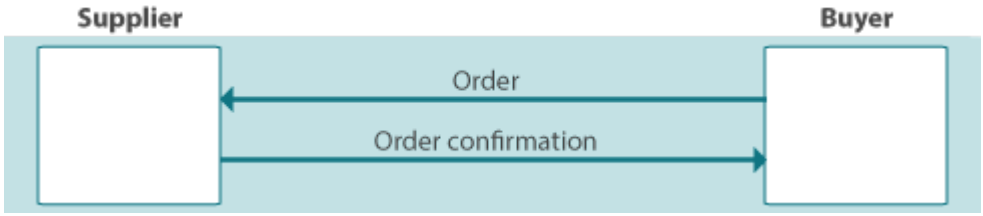


1. The buyer places an Order with the supplier.
2. The supplier validates the content of the Order document.
3. The supplier sends an Order reception acknowledgement to the supplier with the results of the validation.
4. The supplier compares the requested order quantity of the trade items against the available inventory level.
5. Any exceptions arising from the assessment of the stock situation are handled by the supplier contacting the buyer by telephone, fax, e-mail or website.

Read the following sections: 3.5.3.1 Create Order, 3.5.3.2 Acknowledge/Reject receipt of Order, 3.5.3.3 Check stock levels

3.5.2.3. Scenario 3 – Order and Order confirmation

Figure 3-16 Scenario 3 - Order and Order confirmation

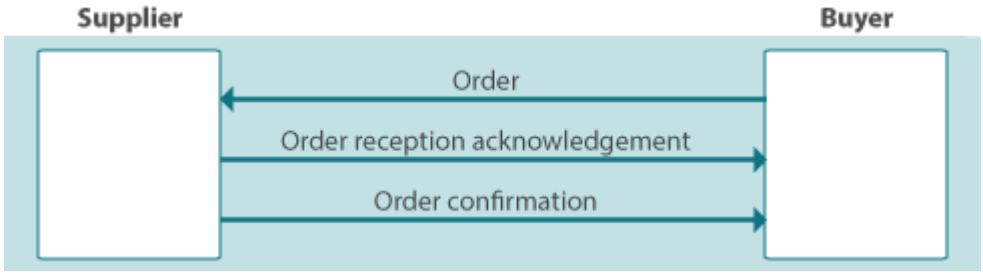


1. The buyer places an Order with the supplier.
2. The supplier validates the content of the Order document.
3. Any exceptions arising from validation are handled by the supplier contacting the buyer by telephone, fax, e-mail or website.
4. The supplier compares the requested order quantity of the trade items against the available inventory levels.
5. The supplier sends an Order confirmation to the buyer with information as to what extent the supplier can deliver as ordered.

Read the following sections: 3.5.3.1 Create Order, 3.5.3.3 Check stock levels, 3.5.3.4 Confirm Order, 3.5.3.5 Confirm Order with changes.

3.5.2.4. Scenario 4 - Order, Order reception acknowledgement and Order confirmation

Figure 3-17 Scenario 4 - Order, Order reception acknowledgement and Order confirmation



1. The buyer places an Order with the supplier.
2. The supplier validates the content of the Order document.
3. The supplier sends an Order reception acknowledgement to the supplier with the results of the validation.
4. The supplier compares the requested order quantity of the trade items against the available inventory levels.
5. The supplier sends an Order confirmation to the buyer with information as to what extent the supplier can deliver as ordered.

Read the following sections: 3.5.3.1 Create Order, 3.5.3.2 Acknowledge/Reject receipt of Order, 3.5.3.3 Check stock levels, 3.5.3.4 Confirm Order, 3.5.3.5 Confirm Order with changes.

3.5.2.5. Initial conditions

For the collaboration process to work in the best way, the following conditions must be fulfilled before the process starts:

1. A business contract has been established between the buyer and supplier.
2. Buyer and supplier have agreed to delivery and payment terms, including what changes the supplier may make in respect of an ordered item.
3. Party information for both buyer and supplier is available in both the buyer's and supplier's system.
4. The contracted product selection, including trade item characteristics, is synchronised and available to both parties for the ordering process.
5. Buyer and supplier have agreed conditions for how Order reception acknowledgement and Order confirmation are to be used. The parties can agree on using one of the following combinations:
   - Neither Order reception acknowledgement nor Order confirmation;
   - Order reception acknowledgement;
   - Order confirmation;
   - Both Order reception acknowledgement and Order confirmation
6. Buyer and supplier have agreed if an Order may or may not be confirmed more than once, that is if more than one Order confirmation can be sent for the same Order, such as when back ordering is allowed.
7. Buyer and supplier have agreed whether receipts will be used for Order confirmations in the event that the parties are agreed that more than one Order confirmation can be sent for the same Order.

3.5.2.6. Termination conditions

The process runs until one of the following conditions are satisfied:

1. The supplier has rejected the Order. A rejection means that the supplier does not accept the Order and will not deliver the ordered items to the buyer, **or**
2. The supplier has confirmed the Order. Confirmation of an Order means that all necessary information about the upcoming delivery has been exchanged, the buyer has the basis for receipt reconciliation and the supplier knows exactly what is to be delivered. Everything is in order for the next phase, Deliver, to start, see chapter 3.6 Deliver.

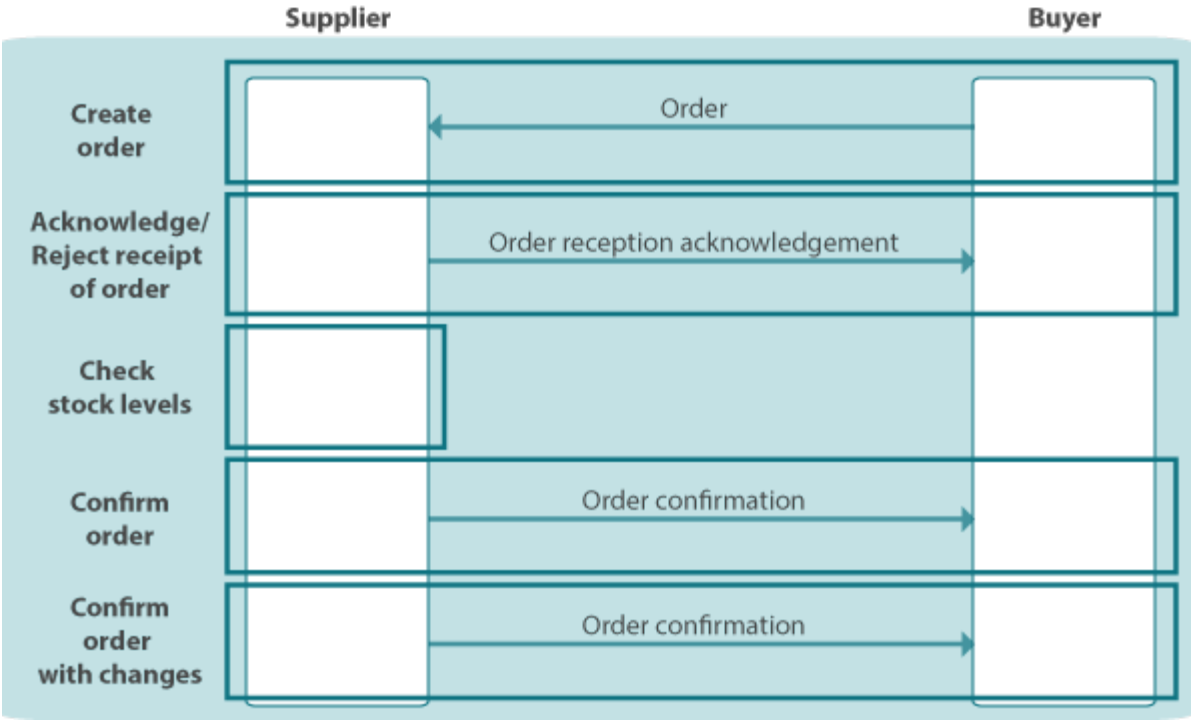
3.5.2.7. Handling receipts for Order confirmations

If the parties have agreed that more than one Order confirmation can be sent for the same Order, receipts are recommended. In this way the sequence of the Order confirmation documents can be ensured.

A receipt message from the buyer's system must arrive before a further Order confirmation for the same Order can be sent by the supplier. The parties must therefore agree a period (in minutes) during which the buyer's system which has received the Order confirmation must create and send a receipt message to the sending system at the supplier. The Technical Appendix to the interchange agreement specifies the item period for receipts. It must be ensured that the receiving EDI system reads the business transactions in the correct sequence.

3.5.3. Detailed description of Place order

This chapter provides a detailed description of how the collaboration process "Place order" is implemented.



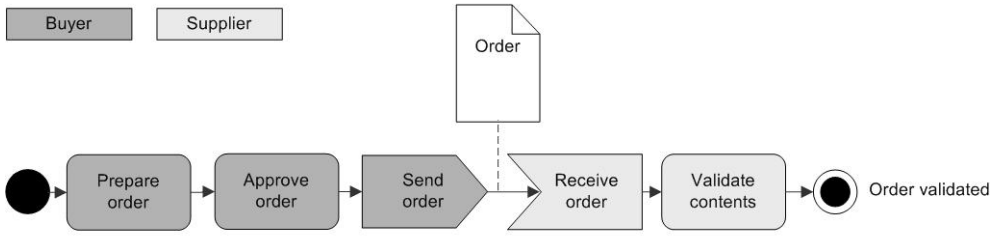
The chapter is divided into the following sections:

- 3.5.3.1 Create Order describes how the buyer creates an Order and the supplier receives and validates the Order.
- 3.5.3.2 Acknowledge/Reject receipt of Order describes how the supplier sends an Order reception acknowledgement in order to inform the buyer that the Order is accepted or rejected based on the results of the validation.
- 3.5.3.3 Check stock levels describes how the supplier checks the Order against stock levels.
- 3.5.3.4 Confirm Order describes how the supplier sends an Order confirmation in order to inform the buyer that he has committed to delivering the ordered items.
- 3.5.3.5 Confirm Order with changes describes how the supplier sends an Order confirmation in order to inform the buyer that he can deliver with some changes from the Order or that he cannot deliver at all.

See chapter 3.5.2 Scenarios for a listing of which subchapters are applicable for each scenario.

3.5.3.1. Create Order

Figure 3-18 Buyer's and supplier's steps when exchanging an Order



The steps that the parties should take before the business document *Order* is sent and after it has been received are described below.

3.5.3.1.1. Prepare Order

The buyer scans his Inventory System or Database for item(s) that need replenishing. The database contains information such as item, supplier and price, which has previously been synchronised, see chapters 3.3 Synchronise trade item information and 3.4 Synchronise price information.

When the buyer or MRP (Material Requirements Planning) system has selected one or more items and decided on quantities, the basis of an order is created. The business document specification *Order* shows which information is included in the business document, see chapter 3.5.4.1 Order for an overview

3.5.3.1.2. Approve Order

Before the Order is sent to the supplier, it must be approved. Who should be authorised to make this approval varies between organisations. It might be the person making the Order or a specific authorisation may be required. In the latter case, the Order must be available to the signatory.

For traceability it is important to record who approved the Order and when.

It is also important to have procedures for approval in exceptional situations, e.g. when the signatory is not available and there is no deputy or when the order value exceeds the signatory's authority or simply that the signatory does not approve the Order.

3.5.3.1.3. Send and receive Order

When the Order has been approved it is sent to the supplier. Read about receipt of business documents in Appendix B: Receipt of business document and exception handling.

In those cases where the parties have agreed to use one of the alternatives for order response, the buyer waits for the agreed response document (*Order reception acknowledgement* or *Order confirmation*) to arrive according to the terms and within the time frame specified in the contract. This function can usefully be automated if a large number of orders are sent to many suppliers. The requisitioner can then be alerted if an order response does not arrive.

In order for the requisitioner and others with similar requirements to be able to follow the progress of a given order, the order should be updated with an appropriate status.

3.5.3.1.4. Validate Order

Once the Order has been received by the supplier's order receiving system the following validations of the general information of the business document should be made:

1. That the order number has not previously been used by the buyer, i.e. there are no duplicates.
2. That the order date is reasonable.
3. That the GLNs used in the Order are known.
4. That a reference to the contract is present in the Order if there is more than one frame contract between the supplier and the buyer. If no reference is present, it is assumed that there is only one contract.
5. That a reference to the price list is present in the Order if the original price list has been updated (by replacement or change) during the contract term. If no reference is present, it is assumed that only one price list has been exchanged.
6. That the requested delivery date is reasonable and within contract's delivery terms.

Note that at this stage only general order information is validated. Item identities and order quantities are validated at a later stage.

3.5.3.1.5. Next

After validation the following takes place, depending on the results of the validation and whether the parties have agreed to use Order reception acknowledgement or not:

- If the Order does not validate correctly, and if the parties have agreed to use Order reception acknowledgement, the supplier sends an Order reception acknowledgement to the buyer to inform him that the Order is rejected, see chapter 3.5.3.2 Acknowledge/Reject receipt of Order. If the parties have agreed not to use Order reception acknowledgement, the supplier should contact the buyer manually and inform him that the Order is rejected.

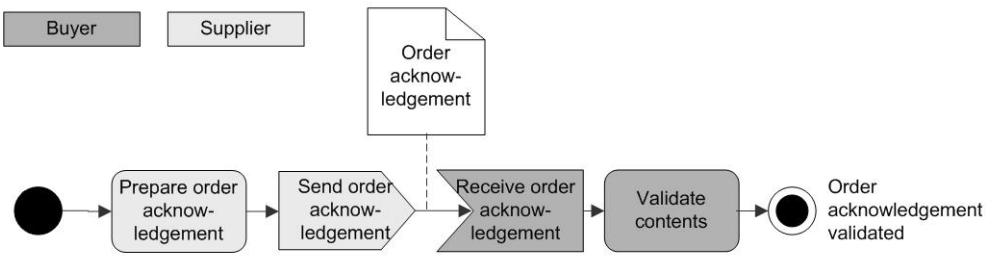
If the Order does validate correctly, and if the parties have agreed to use Order reception acknowledgement, the supplier sends an Order reception acknowledgement to the buyer to inform him that the Order is accepted, see chapter 3.5.3.2 Acknowledge/Reject receipt of Order. If the parties have agreed not to use Order reception acknowledgement, the supplier is assumed to have acknowledged receipt if he has not contacted the buyer within a given time period specified in the interchange agreement. In this case the supplier continues by checking his stock levels, see chapter 3.5.3.3 Check stock levels

3.5.3.2. Acknowledge/Reject receipt of Order

When the supplier has validated the contents of the Order (see previous chapter: 3.5.3.1 Create Order) he sends an Order reception acknowledgement to the buyer. The Order reception acknowledgement gives the buyer one of the following messages:

- That the Order is correct according to validation of contents and has been received but is not yet completely processed in the supplier's system.
- That the Order is not correct according to validation of contents and has been rejected.

Figure 3-19 Buyer's and supplier's steps when exchanging an Order reception acknowledgement



The steps that the parties should take before the business document *Order reception acknowledgement* is sent and after it has been received are described below.

3.5.3.2.1. Prepare Order reception acknowledgement

The supplier prepares the Order reception acknowledgement. The business document specification *Order reception acknowledgement* shows which information is included in the business document, see chapter 3.5.4.2 Order Reception Acknowledgement for an overview.

3.5.3.2.2. Send and receive Order reception acknowledgement

The supplier sends the Order reception acknowledgement to the buyer. Read about receipt of business documents in Appendix B: Receipt of business document and exception handling.

3.5.3.2.3. Validate contents of Order reception acknowledgement

Once the Order reception acknowledgement has been received by the buyer's system the following validations of the content of the business document should be made:

1. That the sender's identity (GLN) is known.
2. That the parties' e-commerce agreement permits the exchange of Order reception acknowledgement at this time.

Read about exception handling when validating content in Appendix B: Receipt of business document and exception handling.

3.5.3.2.4. Next

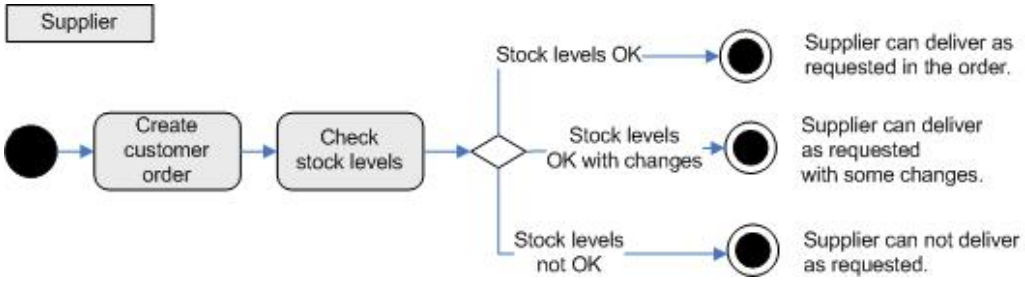
If the Order reception acknowledgement validates correctly the following takes place, depending on the contents of the Order reception acknowledgement:

- If the Order was rejected by the supplier, the buyer can continue by analysing the rejection reasons that have been sent by the supplier. Based on the result, the buyer can decide what action can be taken to satisfy the need for goods. One option is to send a new Order to the supplier with the errors corrected.
- If the Order reception acknowledgement was accepted by the supplier, the buyer waits for an Order confirmation or a despatch advice, depending on what the parties have agreed. The supplier, on his part, continues to process the Order by checking it against stock levels, see next chapter 3.5.3.3 Check stock levels

3.5.3.3. Check stock levels

When the supplier has received and validated the Order (see previous chapter 3.5.3.1 Create Order) stock levels are checked to see if the supplier can deliver the items that were ordered.

Figure 3-20 Supplier's steps when checking stock levels



The steps that the supplier should take are described below.

3.5.3.3.1. Create customer order

A customer order is created in the supplier's business system. To ensure traceability between the Order and the customer order, a unique reference to the Order message must be created. To ensure that customer orders are not duplicated a global document identifier can be used.

3.5.3.3.2. Check stock levels

The customer order is then checked against stock levels to determine whether the supplier can deliver the ordered items. It is also recommended that a check is made that the GTINs of the ordered items are valid and that the ordered quantities are reasonable. The stock control can have the following outcomes:

1. Stock control shows that the supplier can deliver as requested in the Order.
2. Stock control shows that the supplier can deliver as requested with some changes (change of delivery date, etc.).
3. Stock control shows that the supplier cannot deliver as requested.

3.5.3.3.3. Next

What happens next depends on the result of the stock level check as well as what order response messages the parties have agreed to use.

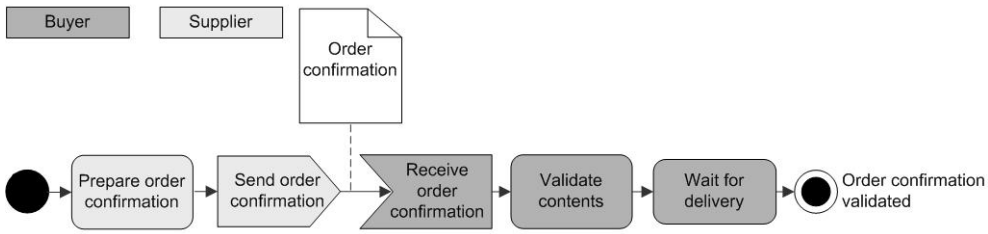
1. The supplier can deliver as requested in the Order.
   a. If the parties have agreed to use Order confirmation, the supplier sends an Order confirmation to the buyer. See chapter 3.5.3.4 Confirm Order.
   b. If the parties have agreed not to use Order confirmation, no message is sent to the buyer. Instead the supplier is assumed to have confirmed the Order unless he has contacted the buyer within a set period of time as specified in the interchange agreement.
2. The supplier can deliver as requested with some changes.
   a. If the parties have agreed to use Order confirmation with changes, the supplier sends this to the buyer. See chapter 3.5.3.5 Confirm Order with changes.
   b. Otherwise the supplier should contact the buyer and inform him of the changes.
3. The supplier cannot deliver.
   a. If the parties have agreed to use Order confirmation with changes, the supplier sends a message where all ordered items are rejected. See chapter 3.5.3.5 Confirm Order with changes.

b. Otherwise the supplier should contact the buyer and inform him that nothing will be delivered.

3.5.3.4. Confirm Order

If stock level control shows that the supplier can deliver the ordered items (see chapter 3.5.3.3 Check stock levels) and the parties have agreed to use Order confirmation, the supplier sends an Order confirmation to the buyer. Order confirmation informs the buyer that the supplier has committed to delivering the items.

Figure 3-21 Buyer's and supplier's steps when exchanging Order confirmation



The steps that the parties should take before the business document *Order confirmation* is sent and after it has been received are described below.

3.5.3.4.1. Prepare Order confirmation

The supplier prepares the Order confirmation. The business document specification *Order confirmation* shows which information is included in the business document, see chapter 3.5.4.3 Order confirmation for an overview.

3.5.3.4.2. Send and receive Order confirmation

The supplier sends the Order confirmation to the buyer. Read about receipt of business documents in Appendix B: Receipt of business document and exception handling.

For document tracking it is desirable to log information on when a document was sent and, if possible, received by the recipient.

3.5.3.4.3. Validate contents of Order confirmation

Once the Order confirmation has been received by the buyer's system the following validations of the content of the business document should be made:

1. That the sender's identity (GLN) is known.
2. That the parties' e-commerce agreement permits the exchange of Order confirmation at this time.

Read about exception handling when validating content in Appendix B: Receipt of business document and exception handling.

3.5.3.4.4. Next

When the Order has been confirmed, the supplier has committed to delivering the ordered items. However, it is possible that the supplier subsequently discovers that he cannot deliver as confirmed. It is then possible for the supplier to send an Order confirmation with changes to advise the buyer of this, see next chapter *3.5.3.5 Confirm Order with changes*. If the parties have not agreed to use this process, then the supplier must contact the buyer and inform him of the changed situation.

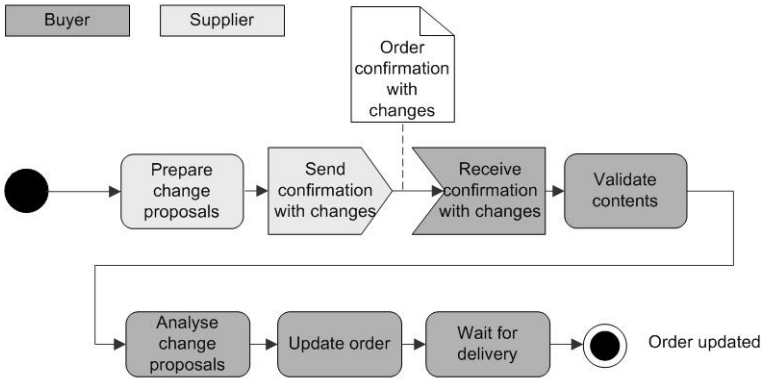
3.5.3.5. Confirm Order with changes

If stock control (see chapter 3.5.3.3 Check stock levels) shows that the supplier can deliver, but with some changes from the Order, the supplier sends an Order confirmation with changes to the buyer, provided that the parties have agreed on this process.

Order confirmation with changes contains changes that the supplier proposes to make in the Order. An example is that an item is back-ordered and will be delivered at some, unspecified, future date.

Order confirmation with changes can also be used if the supplier cannot deliver at all. In this case all items in the Order are rejected.

Figure 3-22 Buyer's and supplier's steps when exchanging Order confirmation with changes



The steps that the parties should take before the business document *Order confirmation* with changes is sent and after it has been received are described below.

3.5.3.5.1. Prepare change proposals

The supplier creates a change proposal. Possible changes in an Order confirmation are:

1. The entire order will be delivered on a date other than that requested.
2. An ordered item will be delivered on a date other than that requested (partial delivery).
3. An ordered item will be delivered on an unspecified future date (back-order).
4. A partial quantity of an ordered item will be delivered on a date other than that requested (partial delivery).
5. A partial quantity of an ordered item will be delivered on an unspecified future date (back-order).
6. A partial quantity of an ordered item is completely rejected.
7. An ordered item is completely rejected
8. All ordered items are completely rejected (the order is rejected).
9. An ordered item is substituted wholly or partially with an alternate item.

The agreement between the parties must specify which changes the supplier is permitted to make for a given item. For example, there must be explicit agreement that items may be substituted.

One Order confirmation can contain a number of changes and these can be of different types. For example, an item can be delivered on more than one occasion at the same time as part of the quantity is rejected.

In the case where an item is substituted with another (bullet 9 above), trade item information for the substitute item must be available in the buyer's business system. The agreement specifies how much the substitute item may differ in quality and price from the substituted item.

3.5.3.5.2. Send and receive Order confirmation

When the proposed changes are ready, an Order confirmation is sent to the buyer. There must be agreement on the time frame for sending an Order confirmation to the buyer.

The business document specification *Order confirmation* shows which information is included in the business document, see chapter 3.5.4.3 Order confirmation for an overview.

When the Order confirmation has been sent, the supplier updates the order status to "Order confirmation sent". Read about receipt of business documents in Appendix B: Receipt of business document and exception handling.

3.5.3.5.3. Validate contents of Order confirmation

Once the Order confirmation has been received by the buyer's system, the following validations of the content of the business document should be made:

1. That the sender's identity (GLN) is known.
2. That the parties have agreed to the exchange of Order confirmation with changes at this time.
3. That the identity of the Order confirmation has not already been used in a previous Order confirmation.
4. That the referenced Order (and referenced order lines) exists.

Read about exception handling when validating content in Appendix B: Receipt of business document and exception handling.

3.5.3.5.4. Analyse change proposals

If the Order confirmation validates correctly, the buyer can continue by analysing what changes the supplier has proposed in the Order. It is essential that the requisitioner carrying out this analysis has complete information, where possible, on the consequences of the changes. If necessary, the requisitioner should contact the supplier for clarification.

3.5.3.5.5. Contact supplier about unaccepted changes

If the changes proposed do not fall within the agreed terms, they are not accepted. The buyer then contacts the supplier and requests new change proposals based on the original Order.

The supplier then sends a new Order confirmation containing changes that are within the agreed terms.

3.5.3.5.6. Update Order

If the analysis shows that the proposed changes are within the agreed terms, the Order is updated in the buyer's system. This means that the original Order is changed according to the Order confirmation.

It is therefore desirable that the purchasing system indicates for the user (requisitioner) that changes have been made. The updated order information is used subsequently for delivery reconciliation and in further document exchanges such as despatch advice and invoice.

3.5.3.5.7. Wait for delivery

The system monitors that delivery is made within the time frames specified in the frame contract and Order (as updated by Order confirmation). Monitoring can be done manually if the system does not support this.

The order status in the buyer's system is changed from "Order sent" to "Order confirmed with changes". If all items were rejected, the status is changed to "Order rejected".

3.5.3.5.8. Next

When the Order is confirmed with changes, the supplier has committed to delivering according to the agreed changes. However, it is possible that the supplier subsequently discovers that he cannot deliver as confirmed. It is then necessary for the supplier to inform the buyer of this. It is also possible that the supplier needs to advise the buyer of delivery dates for items that were back-ordered in a previous Order confirmation. It is possible for the supplier to send a further Order confirmation with changes to update the already updated Order in the buyer's system.

All Order confirmation messages refer to the original Order since each new Order confirmation may only include changes relative the immediately preceding Order confirmation.

If the parties have not agreed to use this process, then the supplier must contact the buyer and inform him of the changed situation.

Continue reading in chapter 3.6 Deliver about how the ordered items are packed by the supplier, transported and delivered.

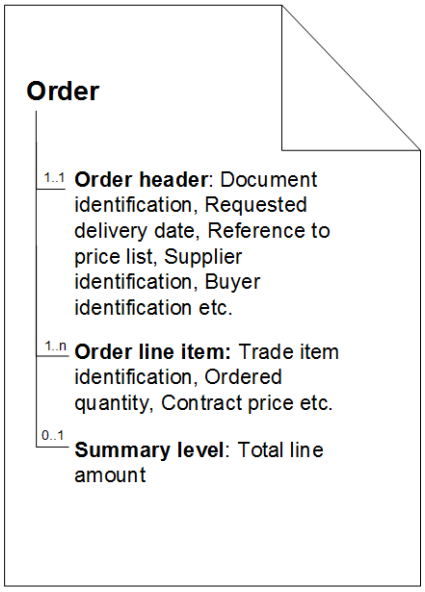
3.5.4. Business document specifications

The following chapters give an overview of the information contained in the business documents of the Place order collaboration process. The chapters also include clarification of how the various business documents should be used for implementation and links to the complete specifications.

3.5.4.1. Order

Business document Order is issued by the buyer to place an order with the supplier.

Figure 3-23 Overview of the contents of business document Order



3.5.4.1.1. Order Header

The Order Header contains information about the document, such as document identification and creation date, and identification of the parties involved (supplier, buyer).

The Order Header may also contain:

- Currency for any amounts stated

- Delivery date
- Reference to a price list and/or a trade agreement.

3.5.4.1.2. Order Line Item

An Order Line Item occurs once for each item being ordered. Each line item contains information which identifies the item and the quantity being ordered.

The order line may also contain price information. However, trade item price information is partner dependent master data which must be synchronised before ordering.

3.5.4.1.3. Summary Level

The Summary Level provides information about the total order amount. The summary level must only be used when the order lines contain trade item price information.

3.5.4.1.4. Specifications for order

The complete specifications can be found on:

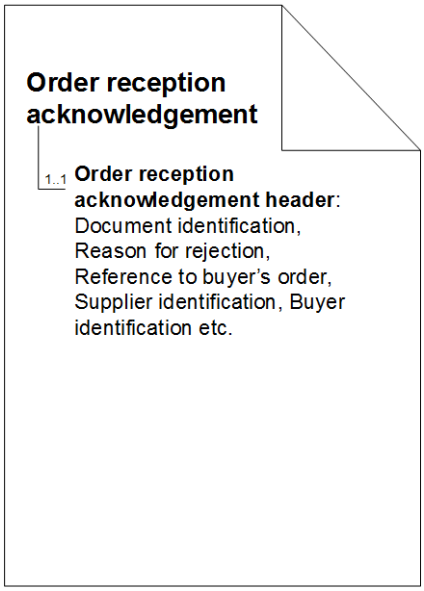
- http://www.gs1.org/docs/gsmp/healthcare/Order.zip

3.5.4.2. Order Reception Acknowledgement

Business document Order Reception Acknowledgement is sent from the supplier to the buyer and is used for two purposes:

- To inform the buyer that the Order has been received but has not yet been checked against stock levels.
- To inform the buyer that the Order document is erroneous and therefore rejected.

Figure 3-24 Overview of the contents of business document Order reception acknowledgement



This business document consists only of a header which contains information about the document, such as document identification and creation date, and identification of the parties involved (supplier and buyer) as well as the order being referred to.

When this document is used to reject the whole order, the reason for rejection can be specified.

3.5.4.2.1. Specifications for Order Reception Acknowledgement

The complete specifications can be found on:

- http://www.gs1.org/docs/gsmp/healthcare/OrderResponse.zip

3.5.4.3. Order confirmation

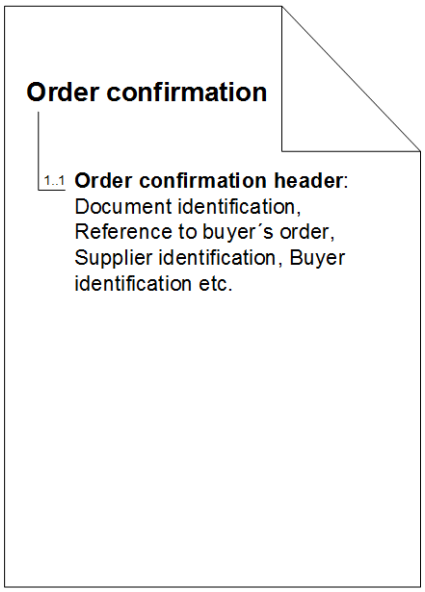
Business document Order Confirmation is sent from the supplier to the buyer and is used to confirm an order. This business document can be used for three purposes:

- **To confirm an order in its entirety**. The supplier takes the responsibility for delivering the ordered items without any changes.
- **To reject an order in its entirety**.
- **To confirm an order and inform the buyer of any changes**, such as change of delivery date, **which the supplier wants to make**. The types of changes which the supplier may make is governed by the commercial agreement.

3.5.4.3.1.1. Confirm an order in its entirety

When this business document is used to confirm an order in its entirety, it consists only of a header which identifies the document, the parties involved and the order being confirmed.

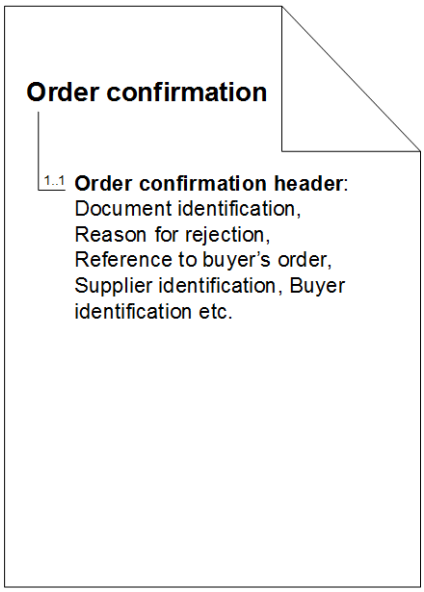
Figure 3-25 Overview of the contents of business document Order confirmation when confirming the order in its entirety



3.5.4.3.1.2. Reject an order in its entirety

When this business document is used to reject an order in its entirety, it consists only of a header which identifies the document, the parties involved and the order being rejected. The reason for rejection can be specified.

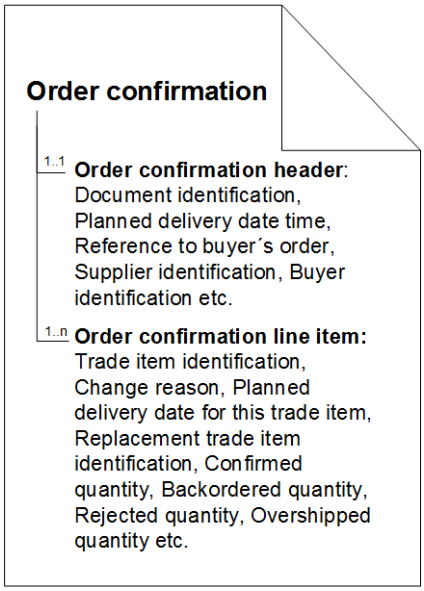
Figure 3-26 Overview of business document Order confirmation when rejecting the order in its entirety



3.5.4.3.1.3. Confirm an order with changes

When this business document is used to confirm an order with changes, it consists of a header and line items.

Figure 3-27 Overview of the contents of business document Order confirmation with proposed changes to the order



3.5.4.3.2. Order Confirmation Header

The Order Confirmation Header contains information that identifies the business document, the parties involved (supplier and buyer) and which order it refers to.

It is also possible to specify the planned delivery date if the supplier wants to deliver the items on another date than the requested delivery date specified by the buyer in the order. Note that this delivery date applies to all items in the order. If the supplier wishes to change delivery dates for individual items, this can be done at line level. If the delivery date is the only change, the document consists only of a header.

3.5.4.3.3. Order Confirmation Line Item

An Order Confirmation Line Item is used to reject or change a line item in the original order. Line items in the order that are not changed or rejected are not included in the order confirmation.

The following changes can be made at line item level:

- Change the delivery date of the entire ordered quantity of the item.
- Backorder the entire ordered quantity of the item. That is, the item will be delivered on an unspecified future date.
- Change the delivery date of part of the ordered quantity of the item.
- Backorder part of the ordered quantity of the item. That is, part of the ordered quantity will be delivered on an unspecified future date.
- Reject part of the ordered quantity of the item.
- Reject the entire ordered quantity of the item.
- Replace part of, or the entire, ordered quantity of the item with another item.
- Overship a quantity of the ordered item

The agreement between the parties must specify which changes the supplier is permitted to make for a given item.

The reason for change of the ordered item can be specified at line item level.

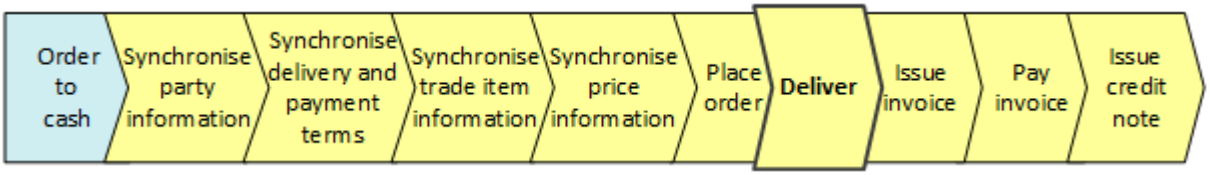
3.5.4.3.3.1. Specifications for Order Confirmation

The complete specifications can be found on:

- http://www.gs1.org/docs/gsmp/healthcare/OrderResponse.zip

3.6. Deliver

3.6.1. Scope



This process handles the delivery of goods that the buyer has ordered. The process covers activities from the preparation of the shipment and its transport through to its receipt and the registration of information needed for traceability and invoice reconciliation.

3.6.2. Scenarios

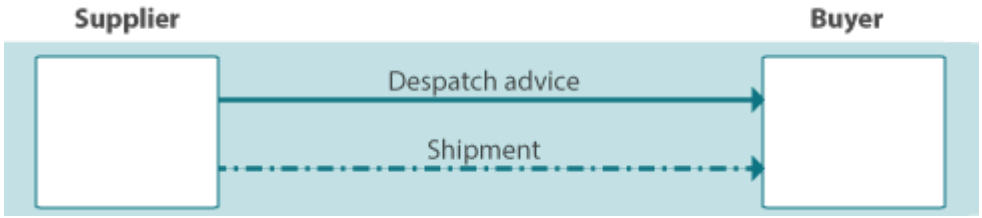
Within the Deliver collaboration process, there are two scenarios regarding the delivery reconciliation:

1. Excluding receiving advice.
2. Including receiving advice.

Trading partners agree among themselves on the scenario used, if necessary incorporating this into an interoperation agreement.

3.6.3. Scenario 1 – Excluding receiving advice

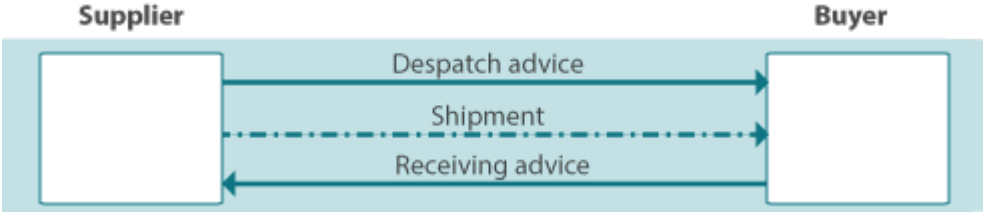
Figure 3-28 Scenario 1 – Excluding receiving advice



1. The process is initiated by the supplier when he has accepted an order from a buyer. The supplier prepares the shipment. Logistic units are labelled with the appropriate GS1 logistic label including the barcoded SSCC. Transport documents are prepared for the haulier.
2. When the shipment is ready to leave the supplier a despatch advice is sent to the recipient. The despatch advice describes exactly which logistic units are included in the shipment. Since the despatch advice should arrive before the goods, the recipient can plan for their arrival.
3. The haulier collects the shipment (consisting of logistic units and associated documentation) and delivers them to the recipient. Transport can be handled by the buyer, supplier or a third party.
4. The recipient receives the shipment and checks that the correct goods have been received and that no goods have been damaged during transport.
5. If delivery reconciliation shows discrepancies between the despatch advice and the items delivered, the buyer informs the supplier about the discrepancies via e-mail, telephone or other agreed communication channel.

3.6.3.1. Scenario 2 – Including receiving advice

Figure 3-29 Scenario 2 - Including receiving advice



1. See step 1 of scenario 1.
2. See step 2 of scenario 1.
3. See step 3 of scenario 1.
4. See step 4 of scenario 1.
5. The buyer sends a receiving advice to the supplier. If delivery reconciliation shows that all items have been correctly delivered, the receiving advice confirms receipt of the goods. If delivery reconciliation shows discrepancies between the despatch advice and the items delivered, the receiving advice notifies on the discrepancies.

3.6.3.2. Initial conditions

For the collaboration process to work in the best way, the following conditions must be fulfilled before the process starts:

1. A business agreement has been established between buyer and seller.
2. Conditions for payment and delivery have been specified.
3. Party information for buyer and supplier has been input to both the buyer's and supplier's systems.
4. The supplier has confirmed that he will deliver according to the buyer's order (possibly with changes agreed by the buyer).
5. Buyer and supplier have agreed whether or not to use a receiving advice.
6. Buyer and supplier have agreed on how discrepancies, if any, between the despatch advice and the items delivered shall be handled.

3.6.3.3. Termination conditions, scenario 1

For scenario 1, the process runs until one of the following conditions are satisfied:

1. Delivery without discrepancies is registered in the buyer's system, **or**
2. The supplier is informed of the discrepancies between the despatch advice and the items delivered.

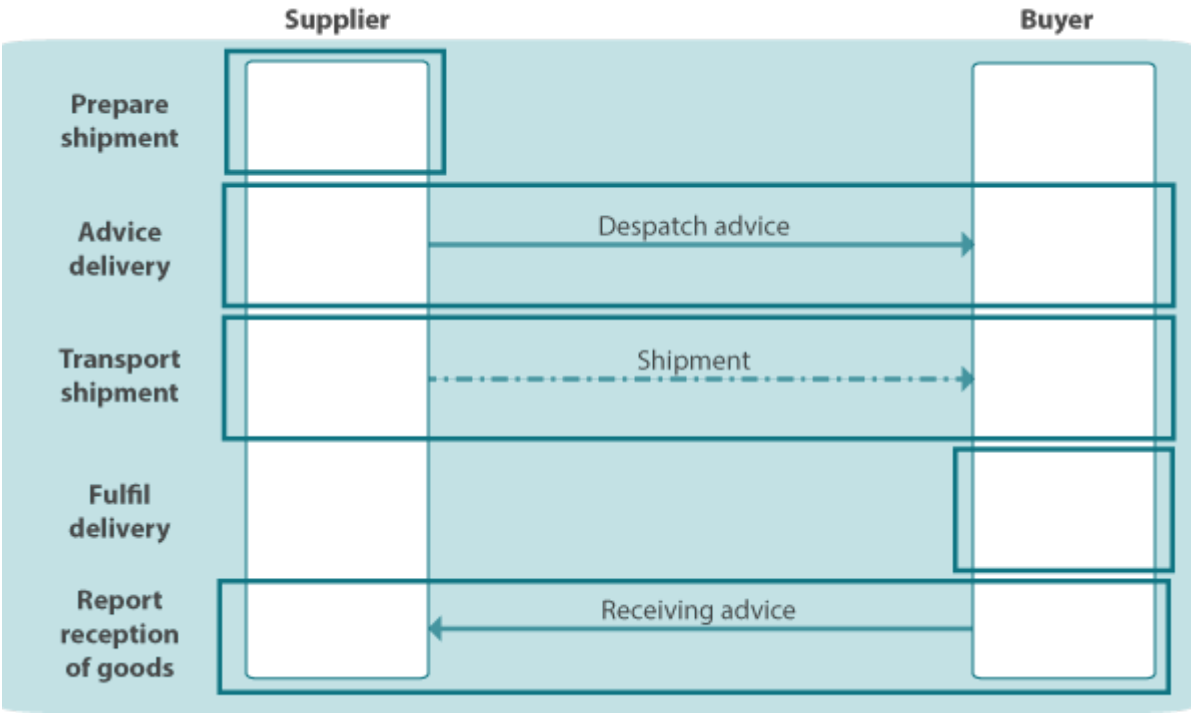
3.6.3.4. Termination conditions, scenario 2

For scenario 2, the process runs until the following condition is satisfied:

- The supplier has received the receiving advice.

3.6.4. Detailed description of Deliver

This chapter provides a detailed description of how the collaboration process ‘Deliver’ is implemented.

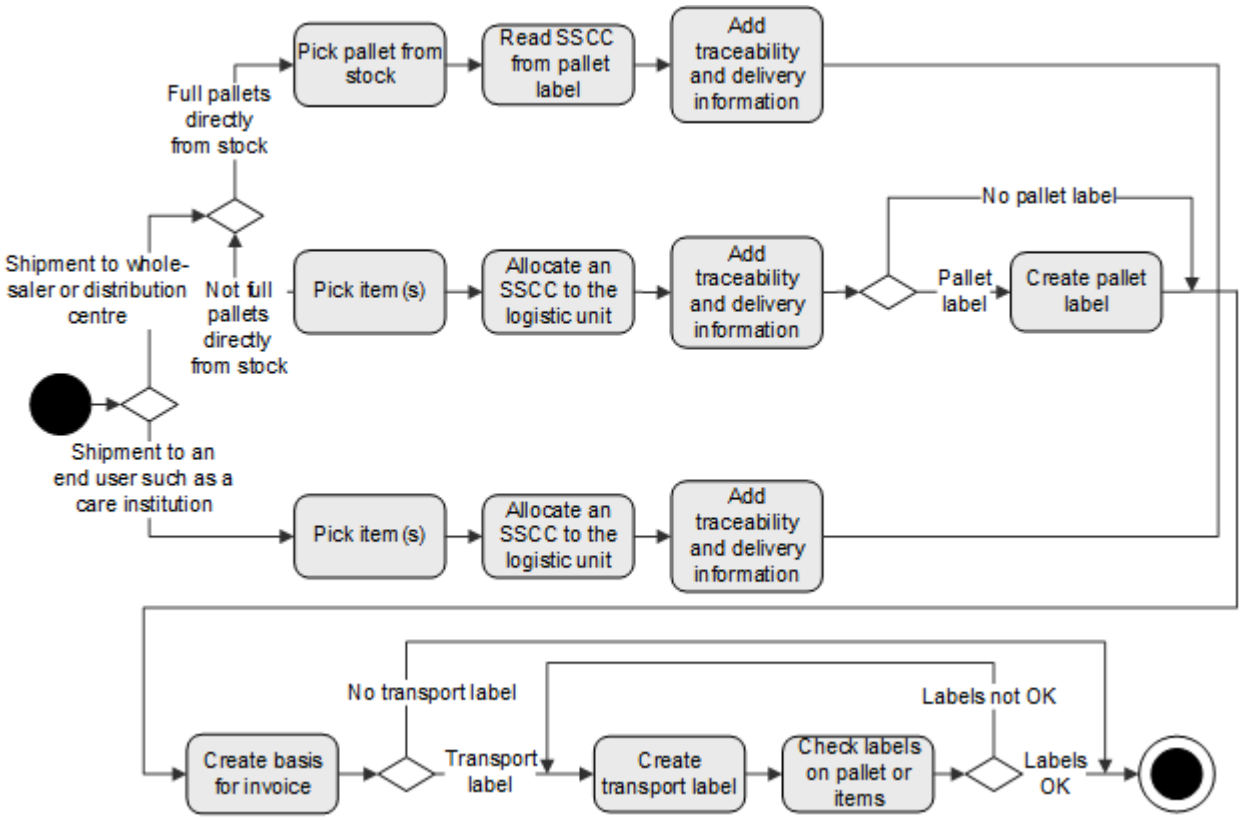


The chapter is divided into the following sections:

- 3.6.4.1 Prepare shipment describes how the supplier prepares the logistic units that are to be included in the shipment.
- 3.6.4.2 Advice delivery describes how the supplier sends a despatch advice to inform the buyer of the upcoming delivery.
- 3.6.4.3 Transport shipment describes how the shipment is transported to the buyer.
- 3.6.4.4 Fulfil delivery describes how the consignee receives the shipment.
- 3.6.4.5 Report reception of goods describes how the buyer sends a receiving advice to inform the supplier of the result of the delivery reconciliation.

3.6.4.1. Prepare shipment

Figure 3-30 Supplier's steps when preparing delivery



The method of preparing a shipment differs slightly depending on whether the recipient is a wholesaler/ distribution centre or an end user such as a care institution, as described below.

3.6.4.1.1. Delivery to wholesaler or distribution centre

A wholesaler or distribution centre orders in sufficiently large volumes that the supplier can deliver full pallets directly from stock. In such cases, the pallet is picked from stock and the SSCC read from the logistic label printed at the production line.

On the other hand, if the buyer has ordered so few packages of the same type that the supplier cannot deliver full pallets, the supplier picks the ordered packages onto a unit load device (ULD) such as a pallet or roll-cage. Information on which items are on the device is input for subsequent use in the despatch advice. The ULD is then given an SSCC. The ULD is then considered as a logistic unit.

As well as the SSCC, other relevant information, such as best-before date and batch number, needed to create a despatch advice is collected. This data can originate in several different ways:

1. From the production system.
2. If a homogeneous pallet is fetched direct from stock and the contents have the same best-before date and batch number, the information can be read from the logistic label.
3. If the supplier has instead picked the ordered packages, then the information in barcoded format can be read from either the logistic label for the pallet or from the label on each package picked from the pallet.

If there is an agreement with the carrier that the transport unit shall have a logistic label, a pallet label is not needed. Otherwise a pallet label is printed and affixed to the transport unit.

The supplier then prepares the basis for an invoice and, if required, transport labels. Read more in chapter *Create basis for invoice and transport labels* below.

3.6.4.1.2. Delivery to care institutions

The supplier picks the ordered packages onto a unit load device such as a pallet or roll-cage. Information on which items are on the device is input for subsequent use in despatch advice.

The logistic units in the delivery are identified with an SSCC. As well as the SSCC, other relevant information about the items on the pallet, such as best-before date and batch number, needed to create a despatch advice is collected. This data can be read from the logistic labels or fetched from the production system. The supplier then prepares the basis for an invoice and, if required, transport labels. Read more in chapter *Create basis for invoice and transport labels* below.

3.6.4.1.3. Create basis for invoice and transport labels

The basis for raising an invoice comes from the buyer's order with a reference to the buyer's order number and a reference to a contract and its current price list. This data is completed with:

1. Shipment information such as shipping date, delivery address, reference to packing list or despatch advice and shipped quantities
2. Price information which applied on the call-off/order date. Different prices may apply depending on whether the invoiced selection has:
    a. Contractually fixed prices
    b. Contractually variable prices (current price)
    c. Non-contracted prices using a discounted list price (sometimes called catalogue selection).
3. Contract information such as delivery and payment terms.
4. Customer details such as tax registration number, company registration number, invoice recipient and payment accounts.
5. Sales account and applicable type of tax account per applicable type of tax rate and other internal codes such as cost centre, project number and debit account. This data is needed to raise an invoice and is only processed internally by the supplier.

When a logistic label is required according to the agreement between the supplier and the haulier or the supplier and the buyer, the logistic units are to be labeled. A logistic label per logistic unit is created and printed. The transport label gives the haulier information to ensure that the logistic unit is delivered to the right place and enables efficient reception of goods.

The Standard International Logistic Label (STILL)[1] is the GS1 recommendation on what data in the human readable and barcoded format is recommended to be used on the GS1 Logistics Label to facilitate efficient handling of the logistics units in the warehousing and transport processes. It recommends the best contents for the label(s) within the framework of the relationship between logistic services client (retailer or supplier), carrier and logistic services provider

Before the logistic unit is released for shipment the label should be checked to ensure that it is correctly positioned on the logistic unit and contains the correct information. The following checks should be made:

1. That the information on the label is correct.
2. That the placement rules described above have been followed.

[1] Standard International Logistic Label (STILL) http://www.gs1.org/sites/default/files/docs/transportlogistics/GS1_Logistic_Label_Guideline.pdf

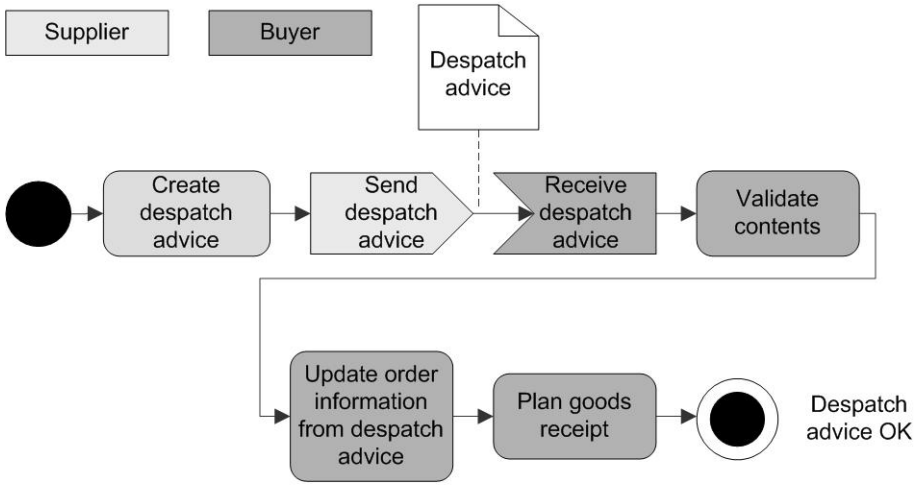
3. That the logistic unit is marked with only one SSCC, i.e. if the logistic unit has both pallet label and logistic label, then the logistic label should not include an SSCC. If there are technical reasons which prevent the suppression of the SSCC on the logistic label, then the SSCC must be identical to that on the pallet label.

If the label is not correctly placed and/or does not contain the correct information, this must be corrected.

When the labels are correctly positioned and contain the correct information, the logistic units are ready for shipment. The next step is for the supplier to send a despatch advice to the buyer, see next chapter.

3.6.4.2. Advice delivery

Figure 3-31 Buyer's and supplier's steps when exchanging despatch advice



The steps that supplier and buyer take before and after transmission of the despatch advice are described below.

3.6.4.2.1. Create despatch advice

When the shipment is ready to leave the sender, a despatch advice should be sent to the buyer. The despatch advice specifies the contents of the shipment.

Business document specification *Despatch advice* shows which information is included in the business document, see chapter 3.6.5.1 Despatch advice for an overview.

Note that:

1. A despatch advice shall correspond exactly to the packages that are being shipped. This means that the despatch advice cannot be prepared before the logistic units are ready for shipment.
2. All items from the same order sent from the same shipper to a delivery point in one shipment shall be specified in one and the same despatch advice.
3. One order can result in more than one shipment. For each shipment a despatch advice shall be issued.

3.6.4.2.2. Send and receive despatch advice

The despatch advice is sent to the buyer. Read about receipt of business documents in Appendix B: Receipt of business document and exception handling.

3.6.4.2.3. Validate contents of despatch advice

Once the despatch advice has been received by the buyer's system the following validations of the content of the business document should be made:

1. That the despatch advice number has not previously been used by the buyer, i.e. there are no duplicates.
2. That the despatch advice date is reasonable.
3. That the GLNs used in the despatch advice header are known and valid.
4. That a business contract exists.
5. That the despatch advice refers to an order.

Read about exception handling when validating content in Appendix B: Receipt of business document and exception handling.

3.6.4.2.4. Update order information from despatch advice

If the document validates correctly or when the buyer has corrected the errors, information from the despatch advice is prepared for reconciliation when the goods are delivered. This information can also be used at a later time, for example in new contract negotiations. Invoice reconciliation is also prepared using the despatch advice.

The following updates are made:

1. If items were substituted when the delivery was prepared and this was contractually acceptable, then order information is updated from the despatch advice.
2. For variable measure items (e.g. variable weight) the shipped quantity can differ from the ordered quantity. In such cases, the buyer's system is updated with the shipped quantity which permits subsequent invoice reconciliation.

When the updates are complete the order is ready for invoice reconciliation.

3.6.4.2.5. Plan goods receipt

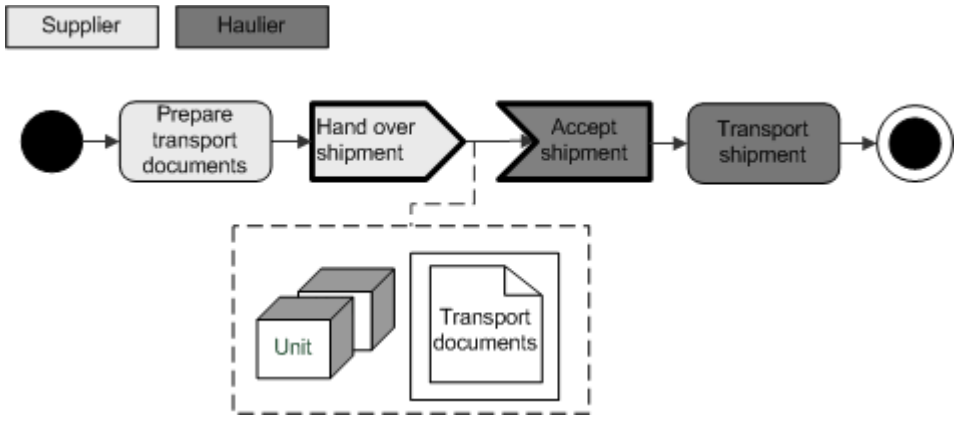
Since the despatch advice arrives before the goods the consignee can plan receipt using information from his item database. This can include choosing chilled, dry or frozen storage, etc.

3.6.4.2.6. Next

Next, the shipment is transported to the recipient, see next chapter

3.6.4.3. Transport shipment

Figure 3-32 Supplier's and haulier's steps when transporting the shipment



The steps which the supplier and the haulier carry out before and after handover are described below.

3.6.4.3.1. Prepare transport documents

The supplier creates a transport document which shows the number of logistic units that the haulier is to transport for the supplier's account as well as the delivery address. It is signed-off by the recipient upon delivery as confirmation that responsibility has passed to the recipient.

3.6.4.3.2. Hand over shipment

The supplier hands the shipment over to the haulier. The shipment consists of logistic units with logistic labels (see http://www.gs1.org/docs/transportlogistics/GS1_STILL.pdf), and transport documents.

3.6.4.3.3. Accept shipment and Transport shipment

The haulier accepts the shipment and also accepts responsibility for the shipment. The haulier then transports the shipment to the given delivery address.

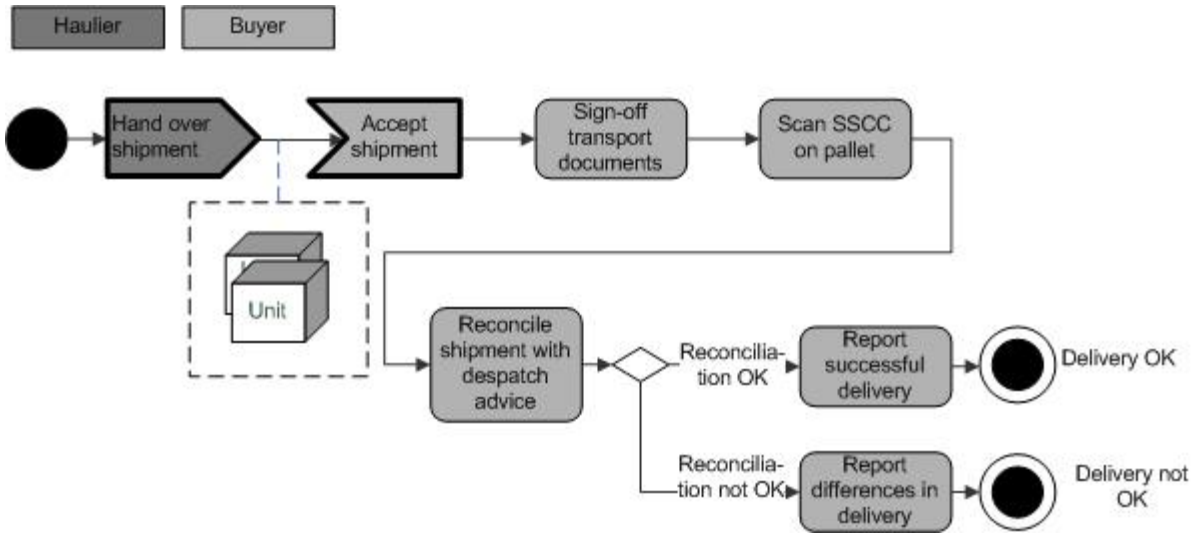
The haulier can be a third party who has been contracted by the supplier or the buyer, or it can be the supplier or buyer himself who provides the transport (i.e. takes the haulier role). The buyer and supplier have agreed where responsibility for the shipment passes from one party to the other and thus who is responsible during transport. If a third party haulier is used, then the transfer of responsibility is governed by the transport contract.

3.6.4.3.4. Next

Next, the recipient receives the shipment, see next chapter.

3.6.4.4. Fulfil delivery

Figure 3-33 Haulier's and buyer's steps when fulfilling delivery



The steps which the haulier and the buyer carry out before and after handover are described below.

3.6.4.4.1. Hand over shipment

The haulier hands over the shipment to the consignee. The shipment consists of logistic units with logistic labels[2] and transport documents.

3.6.4.4.2. Accept shipment

The consignee accepts the shipment from the haulier. An initial check of the shipment is made as follows:

1. That all pallets are undamaged
2. That all logistic units are correctly addressed
3. That the number of logistic units agrees with the transport documents.

The division of responsibility for transport that has been agreed between buyer and supplier determines who the buyer should contact with claims regarding damage in transit.

3.6.4.4.3. Sign-off transport documents

If the shipment is OK at delivery check, the consignee signs the transport documents as evidence of receipt for the haulier. This implies that responsibility for the goods has been transferred to the buyer.

If the shipment is not OK at delivery check, i.e. that some logistic units are damaged or that not all logistic units have been delivered, then the consignee signs the transport documents adding information on any irregularities.

Receipt of the logistic units does not mean that the buyer has automatically accepted the quality of the incoming items. This may be checked later.

[2] Standard International Logistic Label (STILL)
http://www.gs1.org/sites/default/files/docs/transportlogistics/GS1_Logistic_Label_Guideline.pdf

3.6.4.4.4. Scan SSCC on logistic label

The bar-coded SSCC on the logistic label is read from a terminal connected to the buyer's business system. Using the SSCC as a key, the logistic unit is associated with the appropriate despatch advice and the information it contains.

Information from the despatch advice is used in the following systems:

- Warehouse management
- Traceability
- Accounts payable for invoice reconciliation

3.6.4.4.5. Reconcile shipment with despatch advice

Using the despatch advice as reference, the consignee checks that the correct items have been delivered.

This check depends on how the logistic units are handled as follows:

Alternative 1. The logistic units are placed directly in the warehouse.

1. Check that all logistic units specified in the despatch advice have been delivered.
2. Note any discrepancies from the despatch advice.

Alternative 2. The contents of the logistic units are unpacked.

1. For each logistic unit, identified by an SSCC, check that the items contained correspond to the despatch advice.
2. Note any discrepancies from the despatch advice.

3.6.4.4.6. Report successful delivery

If delivery reconciliation shows that all items have been correctly delivered, then this is input to the business system and signed off by an authorised person. This allows subsequent invoice reconciliation to take place automatically.

3.6.4.4.7. Report differences in delivery

If delivery reconciliation shows discrepancies between the despatch advice and the items delivered, then these are noted for invoice correction and error reports to the supplier.

3.6.4.4.8. Next

If the parties have agreed to use a receiving advice to report the results of the delivery reconciliation, the buyer sends a receiving advice to the supplier, see next chapter *3.6.4.5 Report reception of goods*. If the parties have not agreed to use a receiving advice, and if the delivery reconciliation shows discrepancies between the despatch advice and the items delivered, the buyer must contact the supplier and inform him about the discrepancies.

3.6.4.5. Report reception of goods

To be addressed in phase two of the eCom healthcare harmonisation project.

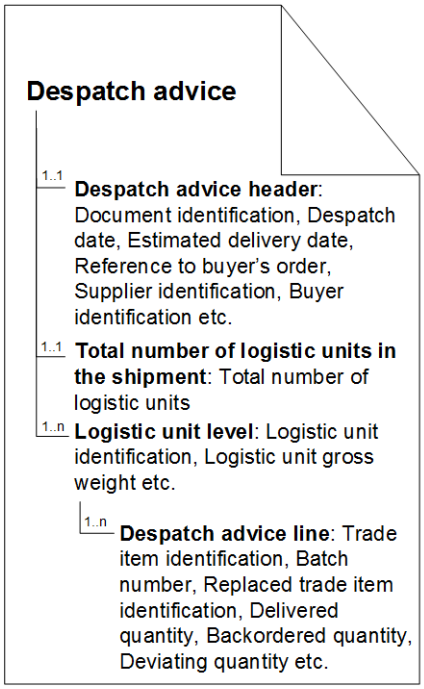
3.6.5. Business document specifications

The following chapters give an overview of the information contained in the business document used for transmitting delivery information. They also include clarification of how the business documents should be used for implementation and links to the complete specifications.

3.6.5.1. Despatch advice

The supplier uses the Despatch advice to inform the buyer of a pending shipment. The despatch advice describes the logistic units that are part of the shipment and how these are grouped. The business document is a list of logistic units with each line containing a list of items included.

Figure 3-34 Overview of the contents of business document Despatch advice



3.6.5.1.1. Despatch advice header

The header contains information that identifies the business document and the parties involved (supplier and buyer, including the delivery address).

The header may also contain:

- Despatch date
- Delivery date
- Which order and/or delivery note the despatch advice refers to.
- Transport information: Identity of the carrier and/or mode of transport.

3.6.5.1.2. Total number of logistic units in the shipment

The total number of logistic units in the shipment is specified here.

3.6.5.1.3. Logistic unit level

The logistic unit level contains information about the logistic unit, such as SSCC (Serial Shipping Container Code), logistic unit marking type, gross weight and number of packages included in the logistic unit. The logistic unit level also contains a despatch advice line for each item in the logistic unit.

3.6.5.1.4. Despatch advice line

A despatch advice line occurs for each trade item in the logistic unit. It contains information about the trade item, such as:

- Identity of the trade item
- Production data, such as batch number and best before date.
- If the trade item is a replacement item, the identity of the replaced (ordered) item can be specified.
- Adviced quantity of the trade item. The quantity can be specified as delivered, backordered and/or rejected.
- Adviced free goods quantity.
- Reference to order line. A trade item from one order line can be split across several logistic units in the same shipment. A reference to the order line allows the despatch advice to be reconciled with the order.

3.6.5.1.5. Specifications for Despatch advice

The complete specifications can be found on:

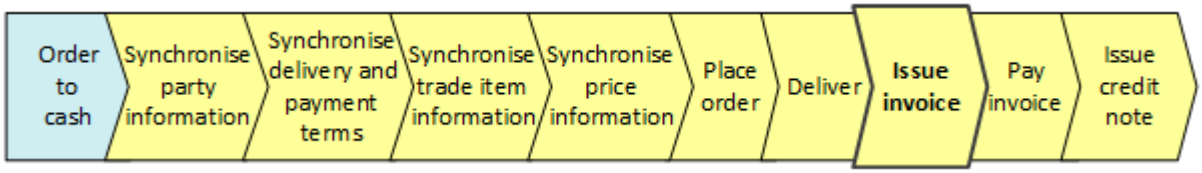
- http://www.gs1.org/docs/gsmp/healthcare/DespatchAdvice.zip

3.6.5.2. Receiving advice

To be addressed in phase two of the eCom healthcare harmonisation project.

3.7. Issue invoice

3.7.1. Scope

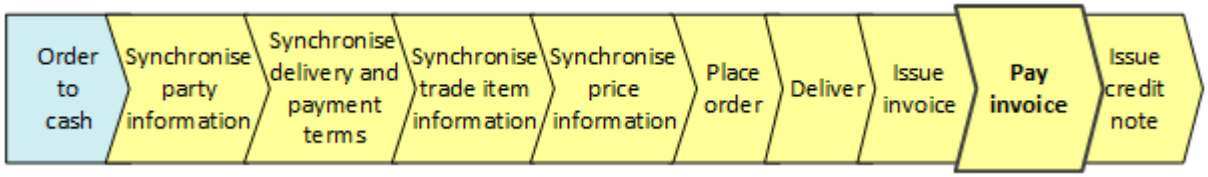


'Issue invoice' covers the payment agreement between the supplier and the buyer.

To be addressed in phase two of the eCom healthcare harmonisation project.

3.8. Pay invoice

3.8.1. Scope

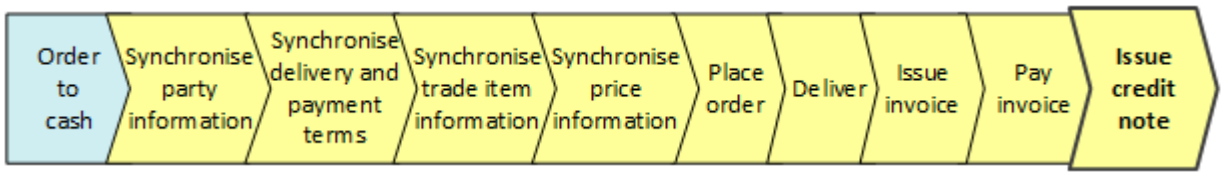


'Pay invoice' covers the process where the buyer transfers an amount to the supplier as specified in the invoice as payment for goods and services delivered.

To be addressed in phase two of the eCom healthcare harmonisation project.

3.9. Issue credit note

3.9.1. Scope



The process of issuing a credit note is used to reimburse the buyer, for example, for returned or faulty products or services, for credit of returned packaging, or for payment of accumulated volume discounts.

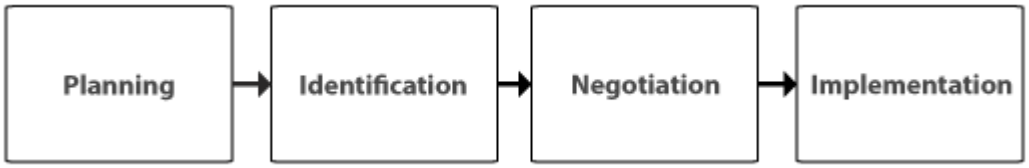
To be addressed in phase two of the eCom healthcare harmonisation project.

Appendix A: Describing a business process

The model for describing a business process as used in this guideline is based on the Common Business Process Catalogue (CBPC), UN/CEFACT Modelling Methodology.

CBPC identifies and describes business processes at a general level. According to CBPC a business process consists of a number of phases:

Figure A-1 The phases of a business process.



According to CBPC a business process starts with a **Planning phase** when a company or organization is planning their operations. Thereafter, the process proceeds to the **Identification phase**, where the company or organization identifies which parties are suitable to establish a business relationship with for business to be conducted.

The business process then proceeds to the **Negotiation phase**, when two parties who want to establish a business relationship sign a framework or business contract. The contract provides, among other things, agreements for goods or services to be supplied, prices, delivery and payment terms. In the **Implementation phase** the parties carry out the obligations they assumed under the frame or commercial agreement.

The Implementation phase is divided into sub-phases:

Figure A-2 Sub-phases of the "Implementation" phase.

In the phase **Identify basic information** buyer and seller exchange additional information about such things as parties, delivery points, price information and trade item information.

In the phase **Order/Call-off** the buyer makes a purchase order or a call-off in accordance with what has been agreed in the framework or business contract. The supplier undertakes to deliver in accordance with the terms of the contract. The buyer agrees to reimburse the supplier for goods delivered or services performed.

In the **Deliver** phase delivery is made of what the parties agreed in the phase Order/Call-off.

In the **Pay** phase payment is made for goods delivered or services rendered according to what the parties agreed in the phase Order/Call-off.

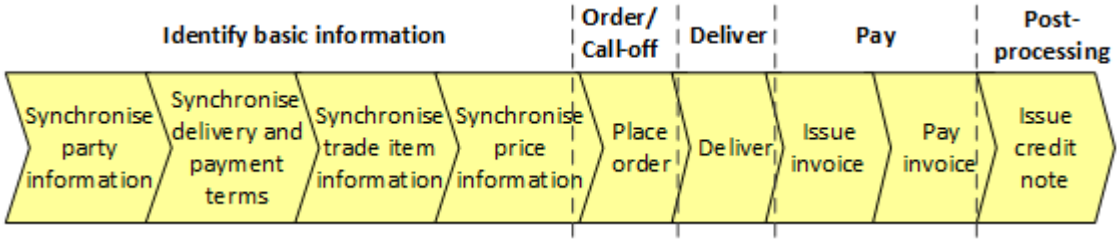
The **Post-processing** phase includes all activities and events occurring after the agreed goods or services have been, or should have been, delivered. This can include handling deposits and returns or various warranty obligations.

All the standardized business processes for e-commerce that GS1 has developed together with users are part of the phase Implementation and go through the sub-phases which this phase contains.

A business process is composed of collaboration processes

According to the model, a business process consists of a number of collaboration processes, which run through the sub-phases of Implementation.

Figure A-3 Illustration of a business process.

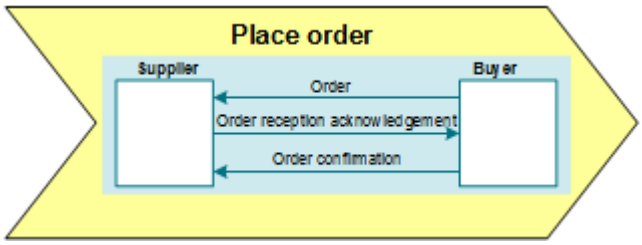


The figure shows an example of a business process that is a set of collaboration processes. The business process runs through the sub-phases of the Implementation phase.

A collaboration process describes how the parties interact

A collaboration process describes how the parties interact and exchange information in a particular area, for example to order goods. The information exchanged is primarily in the form of electronic business documents.

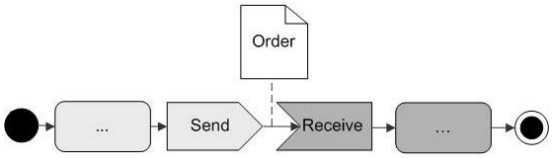
Figure A-4 Illustration of a collaboration process.



A document exchange describes how the parties exchange a business document.

A collaboration process includes one or more document exchanges. A document exchange describes step by step what the sender and recipient should do before a business document is sent and received. This may include how a business document should be approved by an authorised person before it is sent and what checks the recipient of the document should carry out. A document exchange puts the business document in context.

Figure A-5 Illustration of a document exchange.



A business document specification describes the content of a business document.

A business document specification is a description of what information should be included in the electronic business documents exchanged by the parties. By designing an electronic business document such as an order following the business document specification for an order, the parties can be sure that their systems interpret the sent and received information in the same way.

Appendix B: Receipt of business document and exception handling

Receipt and technical validation

When a business document is received by the recipient's system, the receipt is logged with at least the time, sender and recipient which allows the recipient to check that the document meets the requirements for receipt to be accepted.

The interchange agreement defines which information is logged. It also states if and how acknowledgements and receipts will be used. This affects the timing of the formal receipt of the business document by the recipient.

The following technical validations are carried out to confirm that the document has been correctly received:

1. That the sender's identity (GLN) is correct.
2. That the recipient's identity (GLN) is correct.
3. That the message is syntactically correct.
4. That the electronic signature (if used) is valid.

If the document is correct according to the technical validation, the recipient continues to process the business document. This is describe for each document exchange elsewhere in this document.

If the business document is not correct according to the technical validation, the recipient cannot accept the business document. The interchange agreement defines how this should be handled.

Handling exceptions

If the contents of the business document differs from what the parties have agreed upon in the business agreement, the recipient should take appropriate action. The way this is to be done should be defined in the agreement, e.g. if the recipient should contact the sender, in what manner the recipient should contact the sender and if the sender should correct the errors and send a new business document.

Appendix C: Overview of business transactions and messages

This appendix is going to be updated when the rest of the document is completed.

Business transactions	Functional message name	GS1 EANCOM	GS1 XML