

# DESCRIPTION OF SUTI-MESSAGES



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## **1 BLOCK 10: DYNAMIC RESOURCE UTILIZATION**



The purpose of this block is to provide tools to perform a dynamic alteration of the resources that is agreed upon by the Client and the Provider. It will be possible for the Client or the Provider to offer/request more or less of a resource during a certain period.

### **1.1 MSG 1000: Request for temporary alteration of resource allocation**

Message	MSG 1000: Request for temporary alteration of resource allocation
Description	<p>MSG 1000 provides the Client with a tool to request/offer a temporary alteration of the agreed resources. The Client can request an increase or a decrease of the agreed resources. MSG 1000 shall always be responded to, even if it's a rejection of the request. The message contains information about:</p> <ul style="list-style-type: none"> <li>• is it an increase or a decrease</li> <li>• the requested amount</li> <li>• the resource</li> <li>• the time space during witch the Client want to alter the resource allocation</li> </ul>
Sender	Client
Receiver	Provider
Response required	YES
Response MSG	MSG 1001 or MSG 1002
Responsibility Client	
Provider action	<ul style="list-style-type: none"> <li>• immediately respond MSG 1000 with either MSG 1001 or MSG 1002.</li> </ul>

**1.2 MSG 1001: Confirmation of Request for temporary alteration of resource allocation**

Message	MSG 1001: Confirmation of Request for temporary alteration of resource allocation
Description	<p>MSG 1001 is a response on a received MSG 1000. It's sent by the Provider to accept the request in MSG 1000. The message contains information about:</p> <ul style="list-style-type: none"> <li>• is it an increase or a decrease that is accepted</li> <li>• the accepted amount. Can diverse from the requested amount</li> <li>• the resource</li> <li>• the time space during witch the Provider accepts to alter the resource allocation. Can diverse from the requested time space.</li> </ul>
Sender	Provider
Receiver	Client
Response required	NO
Response MSG	-
Client action	
Provider action	

**1.3MSG 1002: Denial of Request for temporary alteration of resource allocation**

Message	MSG 1002: Denial of Request for temporary alteration of resource allocation
Description	MSG 1002 is a response on a received MSG 1000. It's sent by the Provider as a rejection of the request in MSG 1000.
Sender	Provider
Receiver	Client
Response required	NO
Response MSG	-
Client action	
Provider action	

**1.4 MSG 1010: Offer of temporary alteration of resource allocation**

Message	MSG 1010: Offer of temporary alteration of resource allocation
Description	<p>MSG 1010 provides the Provider with a tool to request/offer a temporary alteration of the agreed resources. The Provider can request an increase or a decrease of the agreed resources. MSG 1010 shall always be responded to, even if it's a rejection of the request. The message contains information about:</p> <ul style="list-style-type: none"> <li>• is it an increase or a decrease</li> <li>• the requested amount</li> <li>• the resource</li> <li>• the time space during which the Provider wants to alter the resource allocation</li> </ul>
Sender	Provider
Receiver	Client
Response required	YES
Response MSG	MSG 1011 or MSG 1012
Client action	
Provider action	

**1.5 MSG 1011: Offer of temporary alteration of resource allocation acceptance**

Message	MSG 1011: Offer of temporary alteration of resource allocation acceptance
Description	<p>MSG 1011 is a response on a received MSG 1010. It's sent by the Client to accept the request in MSG 1010. The message contains information about:</p> <ul style="list-style-type: none"> <li>• is it an increase or a decrease that is accepted</li> <li>• the accepted amount. Can differ from the requested amount</li> <li>• the resource</li> <li>• the time space during which the Client accepts to alter the resource allocation. Can differ from the requested time space.</li> </ul>
Sender	Client
Receiver	Provider
Response required	NO
Response MSG	-
Client action	
Provider action	

**1.6 MSG 1012: Offer of temporary alteration of resource allocation rejection**

Message	MSG 1012: Offer of temporary alteration of resource allocation rejection
Description	MSG 1012 is a response on a received MSG 1010. It's sent by the Client as a rejection of the request in MSG 1010.
Sender	Client
Receiver	Provider
Response required	NO
Response MSG	-
Client action	
Provider action	

## 2 **BLOCK 20: ORDER**



The purpose of this block is to provide necessary tools to transfer, confirm and reject an order from the Client to the Provider.

### 2.1 **MSG 2000: Order**

Message	MSG 2000: Order
Description	<p>MSG 2000 is sent from the Client to the Provider and transfers all order data from the Client to the Provider. MSG 2000 contains all data that the Provider needs to dispatch proper resource, start, carry out and finish transportation ordered by the Client. MSG 2000 shall refer to an agreement that exists between the Client and the Provider.</p> <p>If the order comply with the referred agreement, the Provider shall accept the order by sending MSG 2001. This indicates to the Client that the Provider has received, unpacked, generated an order in the provider system and checked it against the referred agreement.</p> <p>If the order do not comply with the referred agreement or the Provider don't have the resources to carry out the order, the Provider can reject the order by sending MSG 2002.</p>
Sender	Client
Receiver	Provider
Response required	YES
Response MSG	MSG 2001 or MSG 2002
Client action	<ul style="list-style-type: none"> <li>• make the order readable by the Provider</li> <li>• make the order understandable by the Provider</li> <li>• make the order in compliance with the referred agreement</li> <li>• send the order in due time giving the Provider time enough to process the order and dispatch necessary resources</li> <li>• ensure the order contain all needed information to the Provider</li> </ul>
Provider action	<ul style="list-style-type: none"> <li>• ensure the order is received in full</li> <li>• ensure the order is unpacked in full</li> <li>• ensure the order is generated in the provider system in full</li> <li>• make the order in compliance with the referred agreement</li> <li>• immediately respond MSG 2000 with either MSG 2001 if the order is accepted or with MSG 2002 if the order is not in accordance with the referred agreement and therefore rejected.</li> </ul>

**2.2 MSG 2001: Order Confirmation (Order received)**

Message	MSG 2001: Order Confirmation (Order received)
Description	MSG 2001 is sent from the Provider to the Client as a response on a received MSG 2000. It indicates that the order is received, comply with the referred agreement and will be carried out.
Sender	Provider
Receiver	Client
Response required	NO
Response MSG	-
Client action	<ul style="list-style-type: none"> <li>perform necessary updates to indicate that the order is accepted by the Provider</li> <li>ensure that the order don't get send to another Provider</li> </ul>
Provider action	<ul style="list-style-type: none"> <li>give the order a identity or booking number</li> <li>inform the Client about the assigned identity or booking identity.</li> </ul>

**2.3 MSG 2002: Order Reject**

Message	MSG 2002: Order Reject
Description	<p>MSG 2002 is sent from the Provider to the Client as a response on a received MSG 2000. It's sent by the Provider to indicate that the order is rejected and will not be carried out in the form it was sent. The message contains information about:</p> <ul style="list-style-type: none"> <li>the referred agreement</li> <li>the part of the referred agreement that the order violates</li> <li>the amount that the order exceed the referred agreement</li> <li>the attributes that are not in accordance with the referred agreement.</li> </ul> <p>If the order comply with the referred agreement and the Provider rejects the order, the Provider must indicate the reason for this. MSG 2002 can be sent up to the dispatch is confirmed.</p> <p>Suggestion: It shall be possible to send a suggestion for another provider that can perform the order in MSG 2001</p>
Sender	Provider
Receiver	Client
Response required	YES
Response MSG	MSG 2003
Client action	<ul style="list-style-type: none"> <li>confirm that MSG 2002 is received by sending MSG 2003</li> <li>correct the demands for resources to make the order in compliance with referred agreement and send a updated MSG 2000</li> <li>refer to another agreement to make the order in compliance with referred agreement and send a updated MSG 2000</li> <li>select a new Provider with whom an agreement that accepts the requested recourses exists</li> </ul>
Provider action	<ul style="list-style-type: none"> <li>inform the Client of what part/parts the order that violated the referred agreement</li> <li>inform the Client of any other reason that caused the Provider to reject the order</li> <li>make necessary updates in the provider system to ensure that the order will not be carried out</li> </ul>

**2.4 MSG 2003: Order Reject Confirmation**

Message	MSG 2003: Order Reject Confirmation
Description	MSG 2003 is a confirmation from the Client that MSG 2002 was received as a response of a MSG 2000 due to a violation of the referred agreement. It is up to the Client to adjust the order and send it again or send it to another Provider.
Sender	Client
Receiver	Provider
Response required	OPTIONAL.
Response MSG	MSG 2000
Client action	<ul style="list-style-type: none"> <li>ensure that the Provider that rejected the order no longer is registered as the part that will carry out the order.</li> </ul>
Provider action	

**2.5 MSG 2010: Order Cancellation Request**

Message	MSG 2010: Order Cancellation
Description	<p>MSG 2010 is a request from the Client to cancel a previously sent and accepted MSG 2000. The Provider is expected to try to cancel the order as a consequence of this message. This action can generate three cases that shall be responded with different messages. The 3 cases are:</p> <ul style="list-style-type: none"> <li>the Provider is able to cancel the order without any consequences. The Provider cancel the order and confirm this with MSG 2011</li> <li>the Provider is able to cancel the order but not without consequence. The Provider cancel the order and confirm this with MSG 2012</li> <li>the Provider is unable to cancel the order. The Provider rejects the cancellation and confirm this with MSG 2013</li> </ul>
Sender	Client
Receiver	Provider
Response required	YES
Response MSG	MSG 2011, MSG 2012 or MSG 2013
Client action	<ul style="list-style-type: none"> <li>ensure that the order id of the order in the cancellation request is correct</li> </ul>
Provider action	<ul style="list-style-type: none"> <li>immediately process the cancellation request</li> <li>if cancellation is possible ensure that the cancellation is carried out</li> <li>inform the client that cancellation is carried out without consequence by sending MSG 2011.</li> <li>inform the client that cancellation is carried out with consequence by sending MSG 2011 or MSG 2012</li> <li>if cancellation is impossible ensure that the Client is informed about this with reason why it was impossible by sending MSG 2013</li> </ul>



**2.6 MSG 2011: Order Cancellation accepted**

Message	MSG 2011: Order Cancellation accepted
Description	MSG 2011 is a response of MSG 2010. It is sent by the Provider to inform the Client that the cancellation in MSG 2010 is accepted and will be carried out without further consequences.
Sender	Provider
Receiver	Client
Response required	NO
Response MSG	-
Client action	<ul style="list-style-type: none"> <li>make necessary updates in the client system to ensure that the order is cancelled.</li> </ul>
Provider action	<ul style="list-style-type: none"> <li>make necessary updates in the provider system to ensure that the order is cancelled and will not be carried out without further consequence.</li> </ul>

**2.7 MSG 2012: Order Cancellation accepted with consequence**

Message	MSG 2012: Order Cancellation accepted with consequence
Description	MSG 2012 is a response of MSG 2010. It is sent by the Provider to inform the Client that the cancellation in MSG 2010 is accepted and will be carried out with consequences for example invoicing of used resources.
Sender	Provider
Receiver	Client
Response required	NO
Response MSG	-
Client action	<ul style="list-style-type: none"> <li>make necessary updates in the client system to ensure that the order is cancelled with consequences.</li> </ul>
Provider action	<ul style="list-style-type: none"> <li>make necessary updates in the provider system to ensure that the order is cancelled and will not be carried out with further consequence.</li> </ul>

**2.8 MSG 2013: Order Cancellation reject**

Message	MSG 2013: Order Cancellation reject
Description	MSG 2013 is a response of MSG 2010. It is sent by the Provider to inform the Client that the cancellation in MSG 2010 is rejected and the order will be completed.
Sender	Provider
Receiver	Client
Response required	NO
Response MSG	-
Client action	<ul style="list-style-type: none"> <li>make necessary updates in the client system to ensure that the order is not cancelled and will be completed.</li> </ul>
Provider action	<ul style="list-style-type: none"> <li>make necessary updates in the provider system to indicate the request for cancellation and the reason for not accept the request.</li> </ul>

**2.9 MSG 2030: Order forward (Not part of standard. Proposal only)**

Message	MSG 2030: Order forward request
Description	Information from the Provider to the Client that the order will be completed by a third party for example a subcontractor to the Provider. The Provider is still responsible for the order and that the order will be completed in accordance with the agreement between the Client and The Provider.
Sender	Provider
Receiver	Client
Response required	YES
Response MSG	MSG 2031, MSG 2032
Client action	<ul style="list-style-type: none"> <li>• Immediately check if this request can be accepted and that an agreement exists between the Client and the third party and that this agreement includes forwarding of orders.</li> <li>• Immediately inform the Provider that the Client rejects the request by sending MSG 2031</li> <li>• Immediately inform the Provider that the Client accepts the request by sending MSG 2032.</li> <li>• make necessary updates in the client system to register that the order has been forwarded to a third party and the identity of this third party.</li> </ul>
Provider action	<ul style="list-style-type: none"> <li>• give the client complete information about the third party.</li> <li>• Make sure the third party has an existing agreement with the Client and that both the agreement between the Client and the provider and between the Client and the third party allow forwarding.</li> <li>• Make sure that everything needed is done to make sure that the order are completed.</li> </ul>

**2.10 MSG 2031: Order forwarded reject (Not part of standard. Proposal only)**

Message	MSG 2031: Order forwarded reject
Description	MSG 2031 is a response of MSG 2030. It is a rejection of the request about forwarding to a third party in MSG 2030. The Provider has 2 options, accept the order and complete it without forwarding it or reject the order by sending MSG 2002.
Sender	Client
Receiver	Provider
Response required	OPTIONAL
Response MSG	MSG 2002
Client action	<ul style="list-style-type: none"> <li>• make necessary updates in the client system to register that the client and not the third party is registered on this order.</li> </ul>
Provider action	<ul style="list-style-type: none"> <li>• complete the order</li> <li>• if completion is not possible without the rejected forwarding inform the Client by rejecting the order (MSG2002).</li> </ul>

**2.11 MSG 2032: Order forwarded received (Not part of standard. Proposal only)**

Message	MSG 2032: Order forwarded received
Description	MSG 2032 is sent by the Client to accept the forwarding of this order to a third party. The Client has the option to contact the third party directly or let the Provider contact the third party.
Sender	Client
Receiver	Provider
Response required	NO
Response MSG	-
Client action	<ul style="list-style-type: none"> <li>• Make necessary updates in the client system to register that the order has been forwarded to a third party and the identity of this third party.</li> </ul>
Provider action	<ul style="list-style-type: none"> <li>• Be responsible for the completion of the order by the third party.</li> <li>• Be responsible for information concerning the order is being sent to the Client.</li> <li>• Be responsible for economical and invoicing information concerning the order is being sent to the Client.</li> </ul>

**2.12 MSG 2040: Order Linked**

Message	MSG 2040: Order Linked
Description	MSG 2040 is sent by the Provider to inform the Client that a number of orders have been put together in one new order and will be completed as one order. The Client can use this linked order id as reference if alteration or cancellations are needed in the future. If one of the included orders (suborder) need to be changed or cancelled the Client can use the suborders id. If the alteration or cancellation includes all the included orders the Client use the linked order id. The client has the option to send create and send this linked order as a new order to the Provider as a new order.
Sender	Provider
Receiver	Client
Response required	VALFRITT
Response MSG	MSG 2000.
Client action	<ul style="list-style-type: none"> <li>• Receive and make necessary updates in the client system to register the new order.</li> <li>• If necessary create and send the new order to the Provider for confirmation.</li> </ul>
Provider action	<ul style="list-style-type: none"> <li>• Immediately send information about a linked order to the Client.</li> <li>• If the Client answer with a new MSG 2000 containing the linked order the Provider shall confirm this order.</li> </ul>

### 3 **BLOCK 30: DISPATCH**



This block is used to allocate a vehicle to an order.

#### 3.1 **MSG 3000: Request for Dispatch approval**

Message	MSG 3000: Request for Dispatch approval
Description	Used to let the Provider suggest a vehicle to the Client for a specific order or the demand on the vehicle can change in the time between the order is sent and the order shall be dispatched. MSG 3000 are sent after the provider system has found a suitable vehicle to the order. The base for the selection of the suggested vehicle is the resource demands included in the order (MSG 2000). MSG 3000 shall contain a description of the suggested vehicle.
Sender	Provider
Receiver	Client
Response required	YES
Response MSG	MSG 3001, MSG 3002
Client action	<ul style="list-style-type: none"> <li>• Immediately check that the suggested vehicle meet the demands requested in the order.</li> <li>• Immediately inform the Provider that the suggested vehicle is accepted by sending MSG 3002.</li> <li>• Immediately inform the Provider that the suggested vehicle is rejected by sending MSG 3003.</li> </ul>
Provider action	<ul style="list-style-type: none"> <li>• Suggest a vehicle that fulfil the resource demands that included in the order MSG 2000.</li> <li>• Include a complete description of the suggested vehicle.</li> </ul>

**3.2 MSG 3001: Dispatch rejected**

Message	MSG 3001: Dispatch rejected
Description	<p>The Client use MSG 3001 to inform the Provider that the suggested vehicle has been rejected and don't meet either the resource demands in the order (MSG 2000) or meet the new altered resource demands. In both cases the Client shall inform the Provider what part of the resource demands that the suggested vehicle didn't meet. The Client has the option to send a new set of resource demands to inform the Provider that the resource demands has been altered since the order was sent. The Provider receives this information and suggests a new vehicle by sending a new MSG 3000. The Provider also checks altered resource demands against the referred agreement to confirm that the altered resource demands are within the agreement. If the altered resource demands are not within the referred agreement the provider will answer with a MSG 2002.</p> <p>This procedure will be repeated until either the Client accepts the suggested vehicle either the order is sent to another Provider with a suitable agreement or the order is cancelled.</p>
Sender	Client
Receiver	Provider
Response required	YES
Response MSG	MSG 3000 if new demands are within agreement. In other cases the answer should be MSG 2002.
Client action	<ul style="list-style-type: none"> <li>• Immediately inform the Provider that the suggested vehicle don't meet the resource demands for this order.</li> <li>• If needed inform the Provider of the new demands for the order.</li> </ul>
Provider action	<ul style="list-style-type: none"> <li>• By sending a new MSG 3000 either suggest a new vehicle that meet the earlier resource demands or suggest a vehicle that meet the new demands that has been transferred.</li> <li>• If the new demands are different from the original demands in MSG 2000 check if they comply with the referred agreement in MSG 2000.</li> <li>• If the new resource demands don't comply with the referred agreement in MSG 2000 inform the Client by sending MSG 2002.</li> </ul>

**3.3 MSG 3002: Dispatch approval**

Message	MSG 3002: Dispatch approval
Description	The Client use MSG 3001 to inform the Provider that the suggested vehicle has been accepted. The Provider shall respond with either MSG 3003 to inform the Client that the suggested vehicle accepts the order or with a new MSG 3000 if the suggested vehicle rejects the order or has been dispatched with another order.
Sender	Client
Receiver	Provider
Response required	YES
Response MSG	MSG 3003, MSG 3000
Client action	<ul style="list-style-type: none"> <li>Immediately inform the provider that the suggested vehicle is accepted.</li> </ul>
Provider action	<ul style="list-style-type: none"> <li>Immediately check that the suggested vehicle still is available.</li> <li>Immediately send the order to the suggested vehicle.</li> <li>Immediately process the vehicles answer.</li> <li>If the vehicle accepts the order immediately inform the Client that the vehicle accepted by sending MSG 3003.</li> <li>If the vehicle don't accepts the order immediately inform the Client that the vehicle accepted by sending MSG 3000 with a new suggestion.</li> </ul>

**3.4 MSG 3003: Dispatch Confirmation**

Message	MSG 3003: Dispatch Confirmation
Description	The Provider use MSG 3003 as an answer on MSG 3002 to inform the Client that the suggested and accepted vehicle accepted the order and will perform the order. If a vehicle that has accepted the order is rendered incapable to perform this order a new MSG 3000 shall be sent.
Sender	Provider
Receiver	Client
Response required	NO
Response MSG	-
Client action	<ul style="list-style-type: none"> <li>Make necessary updates in the client system to register that the order is accepted and the vehicle that accepted the order.</li> <li>Be prepared to immediately answer any forthcoming messages that the Provider or the vehicle need to perform the order</li> </ul>
Provider action	<ul style="list-style-type: none"> <li>Make necessary updates in the provider system to register the vehicle that accepted the order.</li> <li>Be prepared to immediately receive any message from the vehicle and forward these messages to the Client.</li> <li>Be prepared to immediately receive any message from the Client and forward these messages to the vehicle.</li> </ul>

## 4 **BLOCK 40: TRAFFIC CONTROL**



This Block is used to provide tools for dynamic Blocket används för dynamisk styrning av resurser. Exempelvis ruttplanering av flera uppdrag eller länkning av flera uppdrag.

### 4.1 **MSG 4000: Request for Traffic Information**

Message	MSG 4000: Request for Traffic Information
Description	MSG 4003 is sent from the Provider/vehicle to the Client as a request for information about an ongoing order. For example a vehicle requests the next pickup point or requests traffic information.
Sender	Provider
Receiver	Client
Response required	YES
Response MSG	MSG 4001, MSG 4002, MSG 4020, MSG 7031
Client action	<ul style="list-style-type: none"> <li>• Immediately answer the request for information by sending MSG 4001.</li> <li>• If no more pickups are included in the order, i.e. the order is concluded, send MSG 4020 to end the order.</li> <li>• If the order is ongoing but no more information is available for the moment, inform the provider about this by sending MSG 4001.</li> <li>• If the order already is ended inform the Provider about this by sending MSG 4002.</li> <li>• If the request isn't applicable inform the Provider about this by sending MSG 7031.</li> </ul>
Provider action	<ul style="list-style-type: none"> <li>• Immediately forward the request from the vehicle to the Client.</li> </ul>

**4.2 MSG 4001: Requested Traffic Information**

Message	MSG 4001: Requested Traffic Information
Description	MSG 4001 is sent from the Client to the Provider in response of a MSG 4000. MSG 4001 contains the requested information, alternative information or telling that no information available for the moment. MSG 4001 can be sent without a requesting MSG 4000. In some route planning system this message can substitute earlier send "node".
Sender	Client
Receiver	Provider
Response required	NO
Response MSG	-
Client action	
Provider action	<ul style="list-style-type: none"> <li>Immediately forward the response to the vehicle that requested the information.</li> </ul>

**4.3 MSG 4002: Release Vehicle**

Message	MSG 4002: Release Vehicle
Description	MSG 4001 is sent from the Client to the Provider in response of a MSG 4000 from the provider/vehicle and if the provider/vehicle don't has any ongoing orders for the moment. Give the Provider information that one of the vehicles in the Providers fleet in some way is registered as performing an order for the Client. The correct response to this is that the Provider releases the vehicle from the order.
Sender	Client
Receiver	Provider
Response required	NO
Response MSG	-
Client action	
Provider action	<ul style="list-style-type: none"> <li>Immediately release the vehicle in question.</li> </ul>

**4.4 MSG 4010: Pickup Confirmation**

Message	MSG 4010: Pickup Confirmation
Description	MSG 4010 is sent from the Provider to the Client to indicate a vehicle has performed a pickup or other action in an ongoing order. This can indicate that a passenger is in the vehicle (Pick up) or that no passenger showed (No Show). The Client are not expected to answer this message.
Sender	Provider
Receiver	Client
Response required	NO
Response MSG	-
Client action	<ul style="list-style-type: none"> <li>Make necessary updates in the client system to register that the transferred information.</li> </ul>
Provider action	<ul style="list-style-type: none"> <li>Immediately forward the information if it originates from the vehicle performing this order.</li> </ul>



**4.5 MSG 4020: End of Order**

Message	MSG 4020: End of Order
Description	MSG 4001 is sent from the Client to the Provider in response of a MSG 4000. MSG 4001 show that the order is ended. It can contain economical information and/or instruction about how to end the order. This message is the end of this order. The Provider isn't expected to answer MSG 4020. But it is possible that this message starts sending of MSG 6000 Order Report if such a message shall be sent.
Sender	Client
Receiver	Provider
Response required	NO
Response MSG	MSG 6000 if report block is used.
Client action	<ul style="list-style-type: none"> <li>• Make necessary updates in the client system to register that the order is ended.</li> <li>• Include information necessary to end the order according to agreement and facilitate invoicing according to agreement.</li> </ul>
Provider action	<ul style="list-style-type: none"> <li>• Immediately make necessary updates to indicate the order as ended.</li> <li>• In the vehicle performing the order make necessary updates of the order and the data that the order has resulted in.</li> </ul>

**4.6 MSG 4031: No contact with Vehicle**

Message	MSG 4031: No contact with Vehicle
Description	MSG 4031 is sent from the Provider to the Client to indicate to indicate that the Provider don't have any contact with the performing vehicle for the moment.
Sender	Provider
Receiver	Client
Response required	NO
Response MSG	-
Client action	
Provider action	<ul style="list-style-type: none"> <li>• Immediately inform the Clint that communication is missing with the performing vehicle.</li> </ul>

## 5 **BLOCK 50: COMMUNICATION**



This block is used to provide tools for communication between the Client and the Provider and between the Client and a Vehicle connected to the Provider.

### 5.1 **MSG 5000: Message to Vehicle**

Message	MSG 5000: Message to Vehicle
Description	MSG 4001 is sent from the Client to the Provider to inform the Provider that the Client wishes to send a message to a vehicle connected to the Provider. The Client can request a read confirmation from the vehicle.
Sender	Client
Receiver	Provider
Response required	YES
Response MSG	MSG 5001, MSG 5002, MSG 4031
Client action	
Provider action	<ul style="list-style-type: none"> <li>• Immediately send the message to the requested vehicle.</li> <li>• Immediately inform the Client that the message is forwarded by sending MSG 5001.</li> <li>• Immediately inform the Client that the message has been read by sending MSG 5002 if requested.</li> </ul>

### 5.2 **MSG 5001: Confirmation Message to Vehicle**

Message	MSG 5001: Confirmation Message to Vehicle
Description	MSG 5001 is sent from the Provider to the Client to indicate that MSG 5000 has been received and is sent to vehicle. If the Provider cant communicate with the vehicle a MSG 4031 is sent to the Client to inform that the vehicle is out of communication.
Sender	Provider
Receiver	Client
Response required	NO
Response MSG	-
Client action	
Provider action	<ul style="list-style-type: none"> <li>• Immediately confirm that message has been sent to the vehicle.</li> </ul>

**5.3 MSG 5002: Confirmation Message to Vehicle Read**

Message	MSG 5002: Confirmation Message to Vehicle Read
Description	MSG 5002 is sent from the Provider to the Client to indicate that MSG 5000 has been received and read in the vehicle. If the Provider cant communicate with the vehicle a MSG 4031 is sent to the Client to inform that the vehicle is out of communication.
Sender	Provider
Receiver	Client
Response required	NO
Response MSG	-
Client action	
Provider action	<ul style="list-style-type: none"> <li>Immediately confirm that message has been read in the vehicle.</li> </ul>

**5.4 MSG 5010: Message to Client from Vehicle**

Message	MSG 5010: Message to Client from Vehicle
Description	MSG 5001 is sent from the Provider to the Client to forward a message from a vehicle to the Client. The Client shall respond by sending MSG 5011.
Sender	Provider
Receiver	Client
Response required	YES
Response MSG	MSG 5011
Client action	<ul style="list-style-type: none"> <li>Immediately receive the message.</li> <li>Immediately take action to let appropriate Receiver read the message.</li> <li>Immediately inform the Provider that the message has been received and appropriate Receiver read the message by sending MSG 5011.</li> </ul>
Provider action	<ul style="list-style-type: none"> <li>Immediately forward message from a vehicle to the Client.</li> </ul>

**5.5 MSG 5011: Message to Client from Vehicle confirmation**

Message	MSG 5011: Message to Client from Vehicle confirmation
Description	MSG 5011 is sent from the Client to the Provider to inform that the Client received and appropriate Receiver read the message.
Sender	Client
Receiver	Provider
Response required	NO
Response MSG	-
Client action	<ul style="list-style-type: none"> <li>Immediately take action to let appropriate Receiver read the message</li> </ul>
Provider action	<ul style="list-style-type: none"> <li>Immediately receive the message.</li> <li>Immediately forward message from a vehicle to the Client</li> </ul>

**5.6 MSG 5020 Request for Location**

Message	MSG 5020 Request for Location
Description	MSG 5011 is sent from the Client to the Provider to request the location of a vehicle performing an order. The Client may request the Provider to provide location for the vehicle during a certain time or a certain distance (Tracking).
Sender	Client
Receiver	Provider
Response required	YES
Response MSG	MSG 5021, MSG 4031, MSG 7031
Client action	<ul style="list-style-type: none"> <li>Make sure requested information is within referred agreement.</li> </ul>
Provider action	<ul style="list-style-type: none"> <li>Immediately respond with requested information by sending MSG 5021.</li> <li>Immediately inform the Client that requested information is unavailable by sending MSG 4031 or MSG 7031.</li> </ul>

**5.7 MSG 5021 Requested Location**

Message	MSG 5021 Requested Location
Description	MSG 5021 is sent from the Provider to the Client as response on MSG 5020. The message contains requested information, for example lat/long, type of coordinate and precision. If the Client requested information that the Provider can't provide, the Provider will respond with MSG 4031 or MSG 7031 and indicate "No location" in the message. MSG 5021 is used to send position of a vehicle performing an ongoing order. MSG 5021 is sent when the vehicle is a predefined distance from the next point ("node") in the order. Position is given in Lat/Long. The distance is given in MSG 4001 or in MSG 2000.
Sender	Provider
Receiver	Client
Response required	NO
Response MSG	-
Client action	
Provider action	<ul style="list-style-type: none"> <li>Immediately send requested location.</li> <li>Immediately send location from a vehicle within distance from next point.</li> <li>Immediately inform the Client that no location is available.</li> </ul>

**5.8 MSG 5030 Request for Orderstatus**

Message	MSG 5030 Request for Orderstatus
Description	MSG 5011 is sent from the Client to the Provider to request status of an ongoing order.
Sender	Client
Receiver	Provider
Response required	YES
Response MSG	MSG 5031, MSG 4031, MSG 7031
Client action	<ul style="list-style-type: none"> <li>Make sure requested information is within referred agreement.</li> </ul>
Provider action	<ul style="list-style-type: none"> <li>Immediately respond the request by sending MSG 5031.</li> <li>Immediately inform the Client that requested information is unavailable by sending MSG 4031 or MSG 7031.</li> </ul>

**5.9 MSG 5031 Requested Orderstatus**

Message	MSG 5031 Requested Orderstatus
Description	MSG 5031 is sent from the Provider to the Client as response on MSG 5030. The message contain the requested information.
Sender	Provider
Receiver	Client
Response required	NO
Response MSG	-
Client action	
Provider action	<ul style="list-style-type: none"><li>• Immediately respond the request.</li></ul>

## 6 **BLOCK 60: REPORT**



Blocket är avsett för att hantera olika rapportbehov som Clientn har. Dessa rapporter innefattar ej Fakturor eller Fakturaspecifikationer.

### 6.1 **MSG 6000: Order Report**

Message	MSG 6000: Order Report
Description	MSG 6000 is sent from the Provider to the Client. The message is a report of a completed order and is initiated of the ending of the order and shall be prescribed in the referred agreement. As a minimum the message shall contain order id, distance and time used.
Sender	Provider
Receiver	Client
Response required	NO
Response MSG	-
Client action	
Provider action	

## **7 BLOCK 70: TECHNICAL CONTROL**



This block provides tools to handle communication and system status of one or more SUTI systems.

### **7.1 MSG 7000 Keep alive**

Message	MSG 7000 Keep alive
Description	MSG 7000 is sent either by the Client or by the Provider as a check that the other system is alive.
Sender	Client or provider
Receiver	Client or provider
Response required	YES
Response MSG	MSG 7001
Sender action	<ul style="list-style-type: none"> <li>May consider the other side as not alive after a number of failed MSG 7000. The exact number of failed messages needed have to be decided between by client and provider.</li> </ul>
Receiver action	<ul style="list-style-type: none"> <li>Respond to a MSG 7000 by sending MSG 7001 within the preset response time. The exact response time have to be decided between by client and provider.</li> </ul>

### **7.2 MSG 7001 Keep alive Confirmation**

Message	MSG 7001 Keep alive Confirmation
Description	MSG 7001 is sent as a response of a MSG 7000 received from the other side. It shall be sent immediately after MSG 7000 has been received and always within the preset response time.
Sender	Receiver of MSG 7000
Receiver	Sender of MSG 7000
Response required	NO
Response MSG	-
Sender action	<ul style="list-style-type: none"> <li>Respond to a received MSG 7000 by sending MSG 7001 within the preset response time.</li> </ul>
Receiver action	<ul style="list-style-type: none"> <li>Consider the other side as alive after having received MSG 7001 as a response of a sent MSG 7000.</li> </ul>

**7.3 MSG 7002 Temporary Stop**

Message	MSG 7002 Temporary Stop
Description	MSG 7002 is sent either by the Client or by the Provider to inform the other side that the sending system will perform a short stop and start of the system (Boot or Shutdown). No answer is expected on this message. The message will not give any time to handle outstanding orders and shutdown will be performed shortly or immediately after the message is sent. The message shall contain the time until the system is back online and fully operational.
Sender	The system that is performing the shutdown.
Receiver	Multiple
Response required	NO
Response MSG	-
Sender action	<ul style="list-style-type: none"> <li>• Inform the other systems that a shutdown is going to be performed shortly.</li> <li>• Inform the other system that its fully operational after the shutdown by sending MSG 7020.</li> </ul>
Receiver action	<ul style="list-style-type: none"> <li>• Wait during the period of time given in the received MSG 7002 before performing any timeout or take other measures.</li> <li>• Immediately start listening for a MSG 7020 from the system performing a shutdown.</li> </ul>

**7.4 MSG 7010 ShutDown Service**

Message	MSG 7010 Shut Down Service
Description	MSG 7010 is sent either by the Client or by the Provider to inform the other side that the sending system will perform an earlier planned shutdown. The side performing shutdown shall inform all concerned sides in due time before the shutdown. MSG 7010 informs that this shutdown will be performed in a while and give the other systems enough time to handle ongoing orders in a controlled manner (Clean up). MSG 7010 shall contain a time limit. The other systems shall respond with MSG 7011 within this time limit. If no answer has been received the shutdown will be performed.
Sender	The system that is performing the shutdown.
Receiver	Multiple
Response required	YES. Within given time limit.
Response MSG	MSG 7011 as soon as "Clean up" is finished.
Sender action	<ul style="list-style-type: none"> <li>• Inform the other systems in due time that a planned shutdown will be performed. This information shall be given in such time that the other sides has enough time to plan and handle the consequences of the shutdown.</li> <li>• Send MSG 7010 in such a time that all involved system has enough time to perform Clean up.</li> <li>• Wait either until all system has sent MSG 7011 or that the given time limit has been reached before performing shutdown.</li> </ul>
Receiver action	<ul style="list-style-type: none"> <li>• Immediately begin Clean up process.</li> <li>• Immediately after Clean up is finished send MSG 7011 to inform that the system is ready.</li> </ul>



**7.5 MSG 7011 ShutDown Service Complete**

Message	MSG 7011 Shut Down Service Complete
Description	MSG 7011 is a response on a received MSG 7010. It will be sent after the receiving system has performed a Clean up of the orders involved in the shutdown of the other system. It is a green light indicating that the system that sends MSG 7011 is ready and waiting for the shutdown to be performed and that it's listening for MSG 7020 from the system performing the shutdown.
Sender	Receiver of a MSG 7010. Multiple systems.
Receiver	Sender of a MSG 7010.
Response required	-
Response MSG	MSG 7020
Sender action	<ul style="list-style-type: none"> <li>• Immediately inform that Clean up is performed.</li> <li>• Immediately start listening for a MSG 7020 from the system performing a shutdown.</li> </ul>
Receiver action	<ul style="list-style-type: none"> <li>• Wait either until all system has sent MSG 7011 or that the given time limit has been reached before performing shutdown.</li> </ul>

**7.6 MSG 7015 Shut Down Failure**

Message	MSG 7015 Shut Down Failure
Description	MSG 7015 is sent either by the Client or by the Provider to inform the other side that the sending system will perform a immediate shutdown. No answer is expected on this message. The message will not give any time to handle outstanding orders and shutdown will be performed immediately after the message is sent. The sender has no estimate for how long the shutdown will be going on. This message is a way to tell other involved system that some unplanned event has occurred that forces the system to shutdown.
Sender	System going down
Receiver	Multiple
Response required	NO
Response MSG	-
Sender action	<ul style="list-style-type: none"> <li>• If possible inform other systems about the shutdown.</li> </ul>
Receiver action	<ul style="list-style-type: none"> <li>• Immediately start prepared emergency routines.</li> <li>• Immediately start listening for MSG 7020 from the system that is shutting down.</li> </ul>

**7.7 MSG 7020 ReStart Service**

Message	MSG 7020 Re Start Service
Description	MSG 7020 is sent by the system that has been performing a shutdown. It indicates that the system is online and ready to start updating/clean up of orders after the shutdown. The system is not ready to receive new order-, dispatch- or traffic control messages.
Sender	The system that sent MSG 7002, MSG 7010, MSG 7015 or has just been put online.
Receiver	All involved system.
Response required	NO
Response MSG	-
Sender action	<ul style="list-style-type: none"> <li>• Inform involved system that the system is online.</li> <li>• If the shutdown was unplanned or accidental, perform clean up in cooperation with the other system/systems.</li> <li>• After clean up is performed immediately inform the other systems/systems that the system is fully operational by sending MSG 7021.</li> </ul>
Receiver action	<ul style="list-style-type: none"> <li>• Immediately start clean up in cooperation with the system that performed a shutdown.</li> <li>• If the shutdown was unplanned or accidental, perform clean up in cooperation with the other system/systems.</li> </ul>

**7.8 MSG 7021 Re Start**

Message	MSG 7021 Re Start
Description	MSG 7021 is sent by the system that has been performing a shutdown. It indicates that the system is online and fully operational.
Sender	The system that sent MSG 7002, MSG 7010, MSG 7015, MSG 7020 or has just been put online.
Receiver	All involved system.
Response required	NO
Response MSG	-
Sender action	<ul style="list-style-type: none"> <li>• Inform involved system that the system is fully operational.</li> </ul>
Receiver action	<ul style="list-style-type: none"> <li>• Re-establish operation.</li> </ul>

**7.9 MSG 7030 Syntax Error**

Message	MSG 7030 Syntax Error
Description	MSG 7030 is sent by the system that has received a message that don't exists, don't have a message id or has a faulty XML syntax.
Sender	System that receives a faulty message
Receiver	Sender of a faulty message
Response required	NO
Response MSG	-
Sender action	<ul style="list-style-type: none"> <li>• Immediately inform the system that sent a faulty message about this.</li> </ul>
Receiver action	<ul style="list-style-type: none"> <li>• Immediately take necessary action to solve the problem.</li> </ul>

**7.10MSG 7031: Not operational**

Message	MSG 7031: Not operational
Description	MSG 7031 is sent as a response of a message that cant be responded in a logical way. For example a request for next point in an order that's already been ended or a part of a message (XML tag) that's not implemented in the actual version used at the receiving system. The telegram may contain a description of the error.
Sender	Both
Receiver	Both
Response required	NEJ
Response MSG	-
Sender action	
Receiver action	