



One Touch Switch Developers Guide

Consumer Switching

Version Draft V0.0.1



Contents

1. Introduction.....	4
1.1 Change Log	4
1.2 Material changes since release 0.0.1	4
1.3 Contributing Authors	4
1.4 Letterbox API	5
2. Residential Switching Message Formats.....	5
2.1 Residential Switch Request	5
2.2 Residential Switch Order	15
2.3 Residential Switch Order Update	17
2.4 Residential Switch Order Trigger	20
2.5 Residential Switch Order Cancellation	22
2.1 Message Summary	25



Figures

No table of figures entries found.



1. Introduction

The One Touch Switch Developers Guide document complements and supports the One Touch Switch Technical Design, v1.0 issued 23rd September 2022 and the One Touch Switch Process Industry document, v4.0 issued 18th August 2022.

This document provides the messaging specification and any design and development considerations for implementors to support the One Touch Switch process.

The core integration elements of the Post Office and Letterbox design, API specifications, security requirements and the messaging envelope are all defined in the One Touch Switch Technical design document. This document focuses only on the One Touch Switch message formats and their use.

For a definition of the One Touch Switch process, please refer to the One Touch Switch Industry Process document referred to above.

1.1 Change Log

Version Date Changed By	Reason for change
V0.0.1 First draft 27/09/2022 OTS-DDG	First draft output from the OTS-DDG (design drafting group) on behalf of TOTSCo. First draft, specifically providing message formats for the OTS process. Only issued for review within the DDG.

1.2 Material changes since release 0.0.1

Separated from the One Touch Switch Technical Design document.

1.3 Contributing Authors

Author	Organisation
██████	████
██████	██████
██████	██████



1.4 Letterbox API

The specification for the Post Offices Letterbox API is included in the One Touch Switch Technical Design document. For the latest version of this specification, and details on the contents and format please refer to that document. The below is included in this document for reference purposes only.

```
{
  "envelope": {
    "source": {
      "type": "RCPID",
      "identity": "ABCD",
      "correlationID": "XYZ987"
    },
    "destination": {
      "type": "RCPID",
      "identity": "ABCD",
      "correlationID": "ABC123",
    },
  },
  "messageFormatName": {
    ....
  }
}
```

The above JSON example identifies where in the structured JSON message sent to and received from the TOTSCo Post Office, the message formats defined in this document will appear.

The red elements represent the JSON container and envelope, the blue element represents where the messages will be presented.

In the examples in this document, the container, red sections above, are shortened to the following for brevity only, and a full envelope would be required in a complete message.

```
{
  "envelope": {
    ...
  },
  "messageFormatName": {
    ....
  }
}
```

2. Residential Switching Message Formats

The following sections define the suite of messages supported for the consumer One Touch Switch process. Each message will be documented with a brief example of the message format, a list of the message elements and their specifications and if appropriate their values.

2.1 Residential Switch Request

A residential switch request defines the information identifying the customer and the services they wish to switch. The following shows the complete message format. For the switching services array, at least one service must be specified.



```

{
  "envelope": {
    ...
  },
  "residentialSwitchRequest": {
    "name": "Miggins",
    "account": "0003316563216",
    "uprn": "12345",
    "address": {
      "addressLines": ["Flat 1", "Rose Cottage", "22 Cheshunt Mews", "Cypress Street", "Tyre Industrial Estate", "Blnatyre"],
      "postTown": "Glasgow",
      "postCode": "SW1P 3UX"
    },
    "services": [
      {
        "serviceType": "IAS",
        "action": "cease"
      },
      {
        "serviceType": "NBICS",
        "serviceIdentifierType": "DN",
        "serviceIdentifier": "0101111222",
        "action": "port"
      }
    ]
  }
}

```

The elements of the JSON are defined below.

JSON element	Description	Format	Notes
residentialSwitchRequest	Identifies the message as being a residential switch request.	Object	Required
name	The surname or business name of the customer requesting to switch.	String	Required
account	The customer account number as known to the losing provider.	String	Optional
uprn	The UPRN number of the premise where the customer is switching services.	Integer	Optional
Address	Address lines identifying the premise where the switch will take place. Must be formatted according to PAF rules, with no abbreviations. Do not include the town, postcode or county.	String array	Required
postTown	The town where service is being switched.	String	Required
postCode	The post code of the address where service is being switched. Formatted with a space between the inward and outward components.	String	Required
services	A container of the services requested to be switched.	Array of services Objects	Required
serviceType	An industry agreed name for the service to be switched. Currently, "IAS" and "NBICS" are supported.	String	Required



serviceIdentifierType	For a provided service identity, the type specifies the nature of that identity. For NBICS, "DN" will be used. For NBICS an identity is not required.	String	Optional
serviceIdentifier	For services that cannot be identified by just presenting the service type, an identity specifies how the losing provider will find that service. *1	String	Optional
Action	Specifies the action the losing provider is asked to take with the service specified.	String	Required

*1 For NBICS, the telephone number will be presented without +44 and including the trunk code (0). For a residential broadband service, the identifier will not be required unless in the event of a business using the one-touch switch process an identifier is needed to differentiate between multiple IAS services being supplied by the losing provider.

This message is always sent by the gaining provider.

Service identity is used primarily for voice services to identify the phone number to be switched (ported), and is not required if the voice service is to be ceased without any port of the existing number. It is optional against the IAS service in case there are any instances where such an identity would be available and prove useful to match with, otherwise, it can be ignored for that service.

All address elements should conform with standard paf formatting rules in the messages. When processing the request, the losing provider will ignore case sensitivity and must be aware that not all providers will format the address in the same way, some lines may be in different positions, possibly concatenated together, therefore matching is not a simple line-to-line comparison and should allow for variations in formatting.

It is a requirement that abbreviation elements not be allowed, and that should a losing provider identify abbreviations in the address supplied by the customer they should be expanded to the full words. For example, rd. should always be road, ave. should always be avenue etc. Likewise, gaining providers must have the same consideration if their data stores address elements with abbreviations, or at least accommodate them in their address matching rules.

Each service being switched on behalf of the customer must be listed in the services object with the action required to be taken by the losing provider.

Action	Meaning
cease	Identifies that the service identified is requested to be ceased as a result of the switching activity. This can apply to IAS and NBICS.
port	Identifies that the number on an NBICS switch will be transferred to the gaining provider as part of the switching activity.

At least one service must be listed in a request with either cease or port to constitute a valid switch request.



Matching of surname or business name should be case insensitive.

If a UPRN is presented, then as long as the postcode and post town is also a match, the losing provider can consider the address a match without having to compare the address line by line.

The object structure for this message is as follows.



2.1.1 Residential Switch Request Confirmation

Below is an example of a successful switch match response (not related to the previous matching example). This message is only ever sent by the losing provider.

```
{
  "envelope": {
    ...
  },
  "residentialSwitchRequestConfirmation": {
    "implicationsSentBy": "email",
    "implicationsSentTo": "d***@my-domain.com",
    "matchResult": {
      "switchOrderReference": " 123e4567-e89b-12d3-a456-426614174000",
      "services": [
        {
          "serviceType": "IAS",
          "switchAction": "ServiceFound",
          "serviceIdentifiers": [
            {
              "identifierType": "ONTRedference",
              "identifier": "123456789"
            },
            {
              "identifierType": "ONTPortNumber",
              "identifier": "1"
            },
            {
              "identifierType": "NetworkOperator",
              "identifier": "Openreach"
            }
          ]
        }
      ]
    },
    {
      "serviceType": "NBICS",
      "switchAction": "ServiceFound",
      "serviceIdentifiers": [
        {
          "identifierType": "CUPID",
          "identifier": "123"
        }
      ]
    }
  ]
}
```




```

    },
    {
      "identifierType": "DN",
      "identifier": "0101111222"
    }
  ]
},
{
  "serviceType": "NBICS",
  "switchAction": "ServiceRetained",
  "serviceIdentifiers": [
    {
      "identifierType": "PartialDN",
      "identifier": "13"
    }
  ]
}
]
},
"alternativeSwitchOrders": [
  {
    "matchResult": {
      "switchOrderReference": "123e4567-e89b-12d3-a456-426614174001",
      "services": [
        {
          "serviceType": "IAS",
          "switchAction": "ServiceFound",
          "ACPID": "Openreach",
          "serviceIdentifiers": [
            {
              "identifierType": "ONTReference",
              "identifier": "123456789"
            },
            {
              "identifierType": "ONTPortNumber",
              "identifier": "1"
            },
            {
              "identifierType": "NetworkOperator",
              "identifier": "Openreach"
            }
          ]
        }
      ]
    },
    {
      "serviceType": "NBICS",
      "switchAction": "ServiceFound",
      "serviceIdentifiers": [
        {
          "identifierType": "CUPID",
          "identifier": "123"
        },
        {
          "identifierType": "DN",
          "identifier": "0101111222"
        }
      ]
    }
  ]
},
{
  "serviceType": "NBICS",
  "switchAction": "optionToCease",
  "serviceIdentifiers": [
    {
      "identifierType": "PartialDN",
      "identifier": "13"
    }
  ]
}
]
}

```



The elements of the JSON are defined below.

JSON element	Description	Format	Notes
residentialSwitchRequestConfirmation	Identifies the message as being a residential switch request confirmation.	Object	Required
implicationsSentBy	Specifies how the implications of switching have been sent to the customer. Current support values are "email" and "post".	String	Required
implicationsSentTo	If the implications of switching were sent by email, this property contains an obfuscated copy of the email address. The domain should be fully visible to aid the customer to identify the email hosting provider the email went to. It is recommended to mask all but 2 characters of the email address. If the addressee is 4 or 5 characters, then all but 1 character must be masked, and if the addressee is less than 4 characters then all characters of the addressee must be obfuscated. For example... ***@hotmail.com d***@hotmail.com d****@hotmail.com d*****e@hotmail.com d*****y@hotmail.com	String	Optional
matchResult	A container for the details of a switch order. The principal match result represents the result as requested by the gaining provider. Subsequent match results represent alternative options available to the customer.	Object	Required
switchOrderReference	The switch order reference is a UUID created by the losing provider to represent the match result actions. xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx	String	Required
Services	A container of the services requested to be switched.	Array of services Objects	Required
serviceType	An industry agreed name for the service to be switched. Currently, "IAS" and "NBICS" are supported.	String	Required
switchAction	Either the action the losing provider will take when the switch is performed, or information to the gaining provider about whether the service matched, or not. Please see the definition table for a list of values and their meanings.	String	Required
ServiceIdentifiers	A list of name and value pairs to identify the serviceType to the gaining provider.	Array of service	Optional



		identifier objects	
identifierType	<p>For a provided service, the identifier type specifies the nature of that identifier.</p> <p>For NBICS, "DN" will be used where the gaining provider had previously supplied that value. If the gaining provider had not previously identified that service, then "PartialDN" will be used and a masked copy of the DN will be returned in the identifier.</p> <p>For IAS an identity is not required but may be provided to assist with switching on some networks.</p>	String	Required
Identifier	<p>For services that cannot be identified by just presenting the service type, an identity specifies how the losing provider will find that service. *1</p>	String	Required

*2 For NBICS, the telephone number will be presented without +44 and including the trunk code (0). For a residential broadband service, the identifier will not be required unless in the event of a business using the one-touch switch process an identifier is needed to differentiate between multiple IAS services being supplied by the losing provider.

ServiceIdentifiers are optional for IAS, but within specific industry segments, for example for Openreach customers, this information would be required to assist in creating the appropriate order types. For voice lines, the ServiceIdentifiers are a requirement.

A successful match response contains the details of how the implications of switching have been sent to the customer and the details of the match concerning the services they have provided.

If a match request was made for multiple services, at least one but not all were found then the match response will only list the found services, and the error code of the match response will indicate a switch order has been provided for those services which matched only. The gaining provider can then use this information to either obtain the correct information from the customer or determine if they have the correct provider.

For each service identified, information about that service will be provided so that the gaining provider can verify the type of switch being performed, especially if they are switching on the same network as this may affect the type of order they may need to raise.

A successful match to a switching request will return a switch order reference that represents the services requested to be switched that were found. Optionally additional switch matches and order references will also be returned in the alternativeSwitchOrders element if other switching combinations are available to the customer. For example, if a switch just requested to switch the broadband but the losing provider also found a voice service, the main switch order reference will be returned specifying just broadband to be ceased, and voice to be retained, but a second switch order reference will be returned indicating a cease of both broadband and voice services is available.

Many values can be returned for the switchAction attribute as follows:



Value	Meaning
ServiceFound	The LRCP has found this service for the matched customer. This is a positive result, and the GRCP may raise a switch order asking for this service to be ceased.
ServiceWithAnotherCust	The LRCP has found this service, but it is recorded against a different customer (not the matched customer). The GRCP may try a second match, for the same LRCP, but using different customer details.
ServiceWithAnotherRCP	The LRCP is aware that this service must exist with another RCP. E.g. the LRCP found WLR voice service for the matched customer, and the line has broadband service, but with a different RCP. The GRCP may try a second match for the other LRCP.
ServiceNotFound	The LRCP has not found this service. The overall match may be positive with a SOR (e.g. broadband has been found, but the voice has not). If the customer proceeds with a switch order, this service should not be included.
ForcedCease	The LRCP has identified a service that was not requested to be ceased but will be automatic if the switch is progressed with the services that have matched. For example, switching a WLR voice line to another network provider would result in the forced cessation of the IAS service.
OptionToCease	The LRCP has identified another service, NBICS or IAS, that can also be ceased within the switch but is not mandated to be ceased. This will only ever be used within the alternativeSwitchOrders element of the response from the LRCP.
OptionToRetain	The LRCP found another service, NBICS or IAS, that has not been requested to be ceased and will be retained.

At least one service must have a status of ServiceFound to constitute a valid match.

Identifier Types for NBICS services

identifierType	Description and example
DN	The UK formatted number is expressed in all digits without spaces. For example 01213339999.
PartialDN	The UK formatted number is masked so only the final 2 digits are identifiable. For example 99.

Identifier Types for IAS services

identifierType	Description and example
NetworkOperator	An identifier for the operator of the network on which the service is provided. To be used to assist in helping the gaining provider determine the ordering processes necessary to switch services.
DN	For NBICS, if a DN had been provided in the matching request, the response may also contain that full DN
PartialDN	For NBICS services where the gaining provider did not specify the full DN in the request, only a PartialDN may be returned in the response. This will be represented by the last two digits of the DN only.



The object structure for this message is as follows.



2.1.2 Residential Switch Request Failure

If the losing provider fails to make a match, or a switch acceptance presents an invalid switch order on the begin or complete switch transactions, the resulting message will represent this through an error code and description.

```

{
  "envelope": {
    ...
  },
  "residentialSwitchRequestFailure": {
    "faultCode": "101",
    "faultText": "failure to match with the supplied information",
    "faultElement": "postCode",
    "faultElementValue": ""
    "address": {
      "addressLines": ["Flat 1", "Rose Cottage", "22 Cheshunt Mews", "Cypress Street", "Tyre Industrial Estate", "Blnatyre"],
      "postTown": "Glasgow",
      "postcode": "SW1P 3UX"
    }
  }
}
    
```

The elements of the JSON are defined below.

JSON element	Description	Format	Notes
residentialSwitchRequestFailure	Identifies the message as being a residential switch request failure.	Object	Required
faultCode	An error code defining the nature of the error found processing the match request	String	Required
faultText	A human-readable description of the fault code	String	Required
faultElement	The element name in the JSON the fault relates to	String	Optional
faultElementValue	The value in the JSON element that failed to process	Sting	Optional



address	Address lines identifying the premise where the switch will take place. Must be formatted according to PAF rules, with no abbreviations. Do not include the town, postcode or county.	String array	Optional
---------	---	--------------	----------

This message is returned in response to a switch request where a match was not determined.

Most responses will simply contain a fault code and description, however in situations where a partial address match is found, given an account number was supplied, but the address does not provide enough confidence to confirm the actual match (please refer to the OTS Process Design document for details), then the address held by the losing provider will be returned on this fault response.

If any individual element fails to process, unrecognised or invalid values, then the fault should report them as well to assist in diagnostics.

The object structure for this message is as follows.



2.1.2.1 Response Codes

The following table defines the list of response codes the losing provider will generate in the event of an error processing a message.

Code	Text	Severity
101	Address not found	Failure
102	Missing, or incomplete address	Failure
103	Name not provided	Failure
104	Account not recognised	Failure
105	The message has not been delivered to the destination but will be retried.	Failure
106	Invalid service type	Failure
107	Invalid switching action	Failure



2.2 Residential Switch Order

At the point a GRCP has approval from a customer to begin switching, the gaining provider will send a residential switch order message to signal the SOR has been accepted and is being progressed.

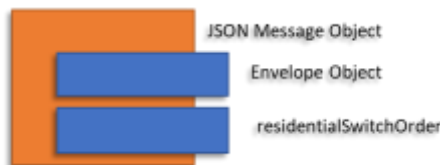
```
{
  "envelope": {
    ...
  },
  "residentialSwitchOrder": {
    "switchOrderReference": "123e4567-e89b-12d3-a456-426614174000",
    "plannedSwitchDate": "2023-04-03"
  }
}
```

The elements of the JSON are defined below.

JSON element	Description	Format	Notes
residentialSwitchOrder	Identifies the message as being a residential switch order.	Object	Required
switchOrderReference	The switch order to be actioned.	String	Required
plannedSwitchDate	The planned switch date represents when the gaining provider expects to deliver service to the customer and is encoded in the format CCYY-MM-DD.	String	Required

The message presents the switch order reference related to the switching activity the customer has given consent to and also the planned switch date.

The object structure for this message is as follows.



2.2.1 Residential Switch Order Confirmation

In response to a valid residential switch order, the losing provider will reply with a residential switch order confirmation.

```
{
  "envelope": {
    ...
  },
  "residentialSwitchOrderConfirmation": {
    "status": "confirmed"
  }
}
```



The elements of the JSON are defined below.

JSON element	Description	Format	Notes
residentialSwitchOrderConfirmation	Identifies the message as being a residential switch order confirmation.	Object	Required
status	The status allows the losing provider to confirm the new state of the switching request, in this case, the value will always be "confirmed".	String	Required

The message confirms to the gaining provider that the losing provider has received the order, it is still valid and they will action the order when it is triggered.

The object structure for this message is as follows.



2.2.2 Residential Switch Order Failure

If the requested switch order reference cannot be found or switched, then the failure message will be returned.

```

{
  "envelope": {
    ...
  },
  "residentialSwitchOrderFailure": {
    "faultCode": "201",
    "faultText": "invalid or missing switch order reference",
    "faultElement": "postCode",
    "faultElementValue": ""
  }
}
    
```

The elements of the JSON are defined below.

JSON element	Description	Format	Notes
residentialSwitchOrderFailure	Identifies the message as being a residential switch order failure.	Object	Required
faultCode	An error code defining the nature of the error found processing the order request	String	Required
faultText	A human-readable description of the fault code	String	Required
faultElement	The element name in the JSON the fault relates to	String	Optional
faultElementValue	The value in the JSON element that failed to process	String	Optional



The message contains a fault code and description.

If any individual element results in a failure to process or finds unrecognised or invalid values, then the fault should report them as well to assist in diagnostics.

The object structure for this message is as follows.



2.2.2.1 Response Codes

The following table defines the list of response codes the losing provider will generate in the event of an error processing a message.

Code	Text	Severity
201	Invalid or missing switch order reference	Failure
202	Switch order reference is no longer available	Failure
203	Invalid or missing planned switch date	Failure

2.3 Residential Switch Order Update

If a gaining provider is taking longer to deliver service and the switch order could expire, then they should notify the losing provider by updating the planned switch date. Please refer to the OTS Process Design document for when to send this message.

```

{
  "envelope": {
    ...
  },
  "residentialSwitchOrderUpdate": {
    "switchOrderReference": "123e4567-e89b-12d3-a456-426614174000",
    "plannedSwitchDate": "2023-04-03"
  }
}
  
```

The elements of the JSON are defined below.

JSON element	Description	Format	Notes
residentialSwitchOrderUpdate	Identifies the message as being a residential switch order update.	Object	Required
switchOrderReference	The switch order reference to be updated.	String	Required



plannedSwitchDate	The planned switch date represents when the gaining provider expects to deliver service to the customer and is encoded in the format CCYY-MM-DD.	String	Required
-------------------	--	--------	----------

The message contains the switch order reference related to the switching activity the customer has given consent to and also the new planned switch date.

The object structure for this message is as follows.



2.3.1 Residential Switch Order Update Confirmation

In response to a residential switch acceptance or a residential switch completion, the LRCP, assuming the request is valid, will reply with a residential switch confirmation.

```
{
  "envelope": {
    ...
  },
  "residentialSwitchOrderUpdateConfirmation": {
    "status": "updated"
  }
}
```

The elements of the JSON are defined below.

JSON element	Description	Format	Notes
residentialSwitchOrderUpdateConfirmation	Identifies the message as being a residential switch order update confirmation.	Object	Required
status	The status allows the losing provider to confirm the new state of the switching request, in this case, the value will always be "updated".	String	Required

The message confirms to the gaining provider that the losing provider has updated the order, it is still valid and they will action the order when it is triggered.

The object structure for this message is as follows.





2.3.2 Residential Switch Order Update Failure

If the losing provider fails to make a match, or a switch acceptance presents an invalid switch order on the begin or complete switch transactions, the resulting message will represent this through an error code and description.

```
{
  "envelope": {
    ...
  },
  "residentialSwitchOrderUpdateFailure": {
    "faultCode": "301",
    "faultText": "invalid or missing switch order reference",
    "faultElement": "switchOrderReference",
    "faultElementValue": "123e4567-e89b-12d3-a456-426614174000"
  }
}
```

The elements of the JSON are defined below.

JSON element	Description	Format	Notes
residentialSwitchOrderUpdateFailure	Identifies the message as being a residential switch order update failure.	Object	Required
faultCode	An error code defining the nature of the error found processing the match request	String	Required
faultText	A human-readable description of the fault code	String	Required
faultElement	The element name in the JSON the fault relates to	String	Optional
faultElementValue	The value in the JSON element that failed to process	String	Optional

The message contains a fault code and description.

If any individual element results in a failure to process or finds unrecognised or invalid values, then the fault should report them as well to assist in diagnostics.

The object structure for this message is as follows.



2.3.2.1 Response Codes

The following table defines the list of response codes the losing provider will generate in the event of an error processing a message.

Code	Text	Severity
------	------	----------



301	Invalid or missing switch order reference	Failure
302	Switch order reference is no longer available	Failure
303	Invalid or missing planned switch date	Failure

2.4 Residential Switch Order Trigger

At the point a GRCP has completed the provision of service, they will inform the losing provider by issuing the residential switch completion message.

Again, this is a basic message only containing the switch order to be completed.

```
{
  "envelope": {
    ...
  },
  "residentialSwitchOrderTrigger": {
    "switchOrderReference": "123e4567-e89b-12d3-a456-426614174000"
  }
}
```

The elements of the JSON are defined below.

JSON element	Description	Format	Notes
residentialSwitchOrderTrigger	Identifies the message as being a residential switch order trigger.	Object	Required
switchOrderReference	The switch order reference to be triggered.	String	Required

This message will be sent by the gaining provider only once, as once the losing provider has processed it the order should be closed to any further action.

The object structure for this message is as follows.



2.4.1 Residential Switch Order Trigger Confirmation

In response to a residential switch acceptance or a residential switch completion, the LRCP, assuming the request is valid, will reply with a residential switch confirmation.

```
{
  "envelope": {
    ...
  },
  "residentialSwitchOrderTriggerConfirmation": {
    "status": "triggered"
  }
}
```



```
}
}
```

The elements of the JSON are defined below.

JSON element	Description	Format	Notes
residentialSwitchOrderTriggerConfirmation	Identifies the message as being a residential switch order trigger confirmation.	Object	Required
status	The status allows the losing provider to confirm the new state of the switching request, in this case, the value will always be "triggered".	String	Required

The message confirms to the gaining provider that the losing provider has triggered the order and the actions agreed in the matching request for that order will be carried out.

The object structure for this message is as follows.



2.4.2 Residential Switch Order Trigger Failure

If the losing provider fails to make a match, or a switch acceptance presents an invalid switch order on the begin or complete switch transactions, the resulting message will represent this through an error code and description.

```
{
  "envelope": {
    ...
  },
  "residentialSwitchOrderTriggerFailure": {
    "faultCode": "401",
    "faultText": "invalid or missing switch order reference",
    "faultElement": "postCode",
    "faultElementValue": ""
  }
}
```

The elements of the JSON are defined below.

JSON element	Description	Format	Notes
residentialSwitchOrderTriggerFailure	Identifies the message as being a residential switch order trigger failure.	Object	Required
faultCode	An error code defining the nature of the error found processing the match request	String	Required
faultText	A human-readable description of the fault code	String	Required



faultElement	The element name in the JSON the fault relates to	String	Optional
faultElementValue	The value in the JSON element that failed to process	String	Optional

The message contains a fault code and description.

If any individual element results in a failure to process or finds unrecognised or invalid values, then the fault should report them as well to assist in diagnostics.

The object structure for this message is as follows.



2.4.2.1 Response Codes

The following table defines the list of response codes the losing provider will generate in the event of an error processing a message.

Code	Text	Severity
401	Invalid or missing switch order reference	Failure
402	Switch order reference is no longer available	Failure
403	Invalid or missing planned switch date	Failure

2.5 Residential Switch Order Cancellation

In the event a customer wishes to cancel an order with the GRCP, if there is an active switch in progress, they should notify the losing provider by sending a cancellation.

```

{
  "envelope": {
    ...
  },
  "residentialSwitchOrderCancellation": {
    "switchOrderReference": "123e4567-e89b-12d3-a456-426614174000"
  }
}
    
```

This message can be sent by the gaining provider only once, as once the LRCP has processed it, the order should be cancelled and not available to be used again.

The elements of the JSON are defined below.

JSON element	Description	Format	Notes
--------------	-------------	--------	-------



residentialSwitchOrderCancellation	Identifies the message as being a residential switch order cancellation.	Object	Required
switchOrderReference	The switch order reference is to be cancelled.	String	Required

The object structure for this message is as follows.



2.5.1 Residential Switch Order Cancellation Confirmation

In response to a residential switch acceptance or a residential switch completion, the LRCP, assuming the request is valid, will reply with a residential switch confirmation.

This message has no additional content.

```

{
  "envelope": {
    ...
  },
  "residentialSwitchOrderCancellationConfirmation": {
    "status": "cancelled"
  }
}
    
```

The elements of the JSON are defined below.

JSON element	Description	Format	Notes
residentialSwitchOrderCancellationConfirmation	Identifies the message as being a residential switch order cancellation confirmation.	Object	Required
status	The status allows the losing provider to confirm the new state of the switching request, in this case, the value will always be "cancelled".	String	Required

The message confirms to the gaining provider that the losing provider has cancelled the switch order and the actions agreed in the matching request for that order will not be carried out.

The object structure for this message is as follows.





2.5.2 Residential Switch Order Cancellation Failure

If the losing provider fails to make a match, or a switch acceptance presents an invalid switch order on the begin or complete switch transactions, the resulting message will represent this through an error code and description.

```
{
  "envelope": {
    ...
  },
  "residentialSwitchOrderCancellationFailure": {
    "faultCode": "501",
    "faultText": "invalid or missing switch order reference",
    "faultElement": "postCode",
    "faultElementValue": ""
  }
}
```

The elements of the JSON are defined below.

JSON element	Description	Format	Notes
residentialSwitchOrderCancellationFailure	Identifies the message as being a residential switch request failure.	Object	Required
faultCode	An error code defining the nature of the error found processing the match request	String	Required
faultText	A human-readable description of the fault code	String	Required
faultElement	The element name in the JSON the fault relates to	String	Optional
faultElementValue	The value in the JSON element that failed to process	String	Optional

The message contains a fault code and description.

If any individual element results in a failure to process or finds unrecognised or invalid values, then the fault should report them as well to assist in diagnostics.

The object structure for this message is as follows.



2.5.2.1 Response Codes

The following table defines the list of response codes the losing provider will generate in the event of an error processing a message.



Code	Text	Severity
501	Invalid or missing switch order reference	Failure
502	Switch order reference is no longer available	Failure
503	Invalid or missing planned switch date	Failure

2.1 Message Summary

The following table identifies who is responsible for raising each message type.

Gaining Provider	Losing Provider	Post Office
residentialSwitchRequest	residentialSwitchRequestConfirmation	messageDeliveryFailure
residentialSwitchOrder	residentialSwitchRequestFailure	
residentialSwitchOrderUpdate	residentialSwitchOrderConfirmation	
residentialSwitchOrderTrigger	residentialSwitchOrderFailure	
residentialSwitchOrderCancellation	residentialSwitchOrderUpdateConfirmation	
	residentialSwitchOrderUpdateFailure	
	residentialSwitchOrderTriggerConfirmation	
	residentialSwitchOrderTriggerFailure	
	residentialSwitchOrderCancellationConfirmation	
	residentialSwitchOrderCancellationFailure	

End of Document