**Annex G**(informative) **Examples of batch transfer**

**Batch transfer management**

The following examples are provided to give practical suggestions as to how to implement batch transfer. This document provides considerable flexibility to enable financial institutions to set up their systems to meet differing requirements and will therefore be the subject of bilateral agreement as to the details. However, in the interests of interoperability it is recommended that, wherever possible, the examples given in this annex be followed.

**Example of batch transfer between an acquirer and a card issuer**

This example gives the specific messages sent and the actual contents of the key message data elements, although any other data elements may also be sent.

The following parameters are assumed:

a) batch transfer initiated by the acquirer;

b) acquirer-initiated batch consists of six financial presentment notification messages with a frequency of acknowledgement every four messages;

c) card-issuer-initiated batch consists of four chargeback messages with no acknowledgement;

d) an optional reconciliation transaction is sent.

Figure G.1 shows the messages flows and Table G.1 to Table G.4 give the relevant data element contents.



**Figure G.1 — Example batch transfer message flows**

**Table G.1 — Start of acquirer batch transfer**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **MTI** | **Bit** | **Data element name** | **Value** | **Meaning** |
| 804 | Acquirer to card issuer |
| 24 | Function code | 841 | Start batch transfer |
| 25 | Message reason code | 8000 | Start transfer, no recovery procedure |
| 69 | Batch/file transfer control data |   |   |
| Batch/file transfer message count | 00000006 | Number of messages in the batch |
| Batch/file transfer file identification | ..test batch 1 | Batch name |
| 814 | Card issuer to acquirer |
| 24 | Function code | 841 | Start batch transfer |
| 39 | Action code | 8000 | Accepted |
| 69 | Batch/file transfer control data |   |   |
| Batch/file transfer message count | 00000006 | Number of messages in the batch |
| Batch/file transfer file identification | ..test batch 1 | Batch name |

**Table G.2 — Acquirer batch details**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **MTI** | **Bit** | **Data element name** | **Value** | **Meaning** |
| 240 | Acquirer to card issuer |
| 68 | Batch/file transfer message control |   |   |
| Batch/file transfer acknowledgement code | 0 | No acknowledgement required |
| Batch/file transfer message sequence number | 00000001 | First message |
| 240 | Acquirer to card issuer |
| 68 | Batch/file transfer message control |   |   |
| Batch/file transfer acknowledgement code | 0 | No acknowledgement required |
| Batch/file transfer message sequence number | 00000002 | Second message |
| 240 | Acquirer to card issuer |
| 68 | Batch/file transfer message control |   |   |
| Batch/file transfer acknowledgement code | 0 | No acknowledgement required |
| Batch/file transfer message sequence number | 00000003 | Third message |
| 240 | Acquirer to card issuer |
| 68 | Batch/file transfer message control |   |   |
| Batch/file transfer acknowledgement code | 1 | Acknowledgement required |
| Batch/file transfer message sequence number | 00000004 | Fourth message |
| 250 | Card issuer to acquirer |
| 68 | Batch/file transfer message control |   |   |
| Batch/file transfer acknowledgement code | 3 | Positive acknowledgement |
| Batch/file transfer message sequence number | 00000004 | All messages up to the fourth one correctly received |
| 240 | Acquirer to card issuer |
| 68 | Batch/file transfer message control |   |   |
| Batch/file transfer acknowledgement code | 0 | No acknowledgement required |
| Batch/file transfer message sequence number | 00000005 | Fifth message |
| 240 | Acquirer to card issuer |
| 68 | Batch/file transfer message control |   |   |
| Batch/file transfer acknowledgement code | 2 | Acknowledgement required, end of transfer |
|   | Batch/file transfer message sequence number | 00000006 | Sixth message |
| 250 | Card issuer to acquirer |
| 68 | Batch/file transfer message control |   |   |
| Batch/file transfer acknowledgement code | 3 | Positive acknowledgement |
| Batch/file transfer message sequence number | 00000006 | All messages up to the sixth one correctly received |

**Table G.3 — Reconciliation**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **MTI** | **Bit** | **Data element name** | **Value** | **Meaning** |
| 520 | Acquirer to card issuer |
| 530 | Card issuer to acquirer |
| 39 | Action code | 8000 | Accepted |

**Table G.4 — End of acquirer batch transfer**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **MTI** | **Bit** | **Data element name** | **Value** | **Meaning** |
| 844 | Acquirer to card issuer |
| 24 | Function code | 842 | End of batch transfer |
| 25 | Message reason code | 8002 | End batch |
| 69 | Batch/file transfer control data |   |   |
| Batch/file transfer message count | 0000000 | Number of messages in the batch |
| Batch/file transfer file identification | ..test batch 1 | Batch name |

**Example of management of negative acknowledgement**

This example shows how an acquirer-initiated batch transfer with a negative acknowledgement for a financial presentment notification message is managed.

The following parameters are assumed:

a) batch transfer is initiated by the acquirer;

b) batch transfer consists of seven financial presentment notifications with a frequency of acknowledgement every three messages with a negative acknowledgement and a repeat requested on the fifth financial presentment notification message.

Figure G.2 shows the message flows and Table G.5 to Table G.11 give the relevant data element contents.



**Figure G.2 — Example of negative acknowledgement message flows**

**Table G.5 — Start of acquirer batch transfer**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **MTI** | **Bit** | **Data element name** | **Value** | **Meaning** |
| 804 | Acquirer to card issuer |
| 24 | Function code | 841 | Start batch transfer |
| 25 | Message reason code | 8000 | Start transfer, no recovery procedure |
| 69 | Batch/file transfer control data |   |   |
| Batch/file transfer message count | 00000006 | Number of messages in the batch |
| Batch/file transfer file identification | ..test batch 1 | Batch name |
| 814 | Card issuer to acquirer |
| 24 | Function code | 841 | Start batch transfer |
| 39 | Action code | 8000 | Accepted |
| 69 | Batch/file transfer control data |   |   |
| Batch/file transfer message count | 00000006 | Number of messages in the batch |
| Batch/file transfer file identification | ..test batch 1 | Batch name |

**Table G.6 — Acquirer batch details**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **MTI** | **Bit** | **Data element name** | **Value** | **Meaning** |
| 240 | Acquirer to card issuer |
| 68 | Batch/file transfer message control |   |   |
| Batch/file transfer acknowledgement code | 0 | No acknowledgement required |
| Batch/file transfer message sequence number | 00000001 | First message |
| 240 | Acquirer to card issuer |
| 68 | Batch/file transfer message control |   |   |
| Batch/file transfer acknowledgement code | 0 | No acknowledgement required |
| Batch/file transfer message sequence number | 00000002 | Second message |
| 240 | Acquirer to card issuer |
| 68 | Batch/file transfer message control |   |   |
| Batch/file transfer acknowledgement code | 1 | Acknowledgement required |
| Batch/file transfer message sequence number | 00000003 | Third message |
| 250 | Card issuer to acquirer |
| 68 | Batch/file transfer message control |   |   |
| Batch/file transfer acknowledgement code | 3 | Positive acknowledgement |
| Batch/file transfer message sequence number | 00000003 | All messages up to the third one correctly received |
| 240 | Acquirer to card issuer |
| 68 | Batch/file transfer message control |   |   |
| Batch/file transfer acknowledgement code | 0 | No acknowledgement required |
| Batch/file transfer message sequence number | 00000004 | Fourth message |
| 240 | Acquirer to card issuer |
| 68 | Batch/file transfer message control |   |   |
| Batch/file transfer acknowledgement code | 0 | No Acknowledgement required |
| Batch/file transfer message sequence number | 00000005 | Fifth message |
| 240 | Acquirer to card issuer |
| 68 | Batch/file transfer message control |   |   |
| Batch/file transfer acknowledgement code | 1 | Acknowledgement required |
| Batch/file transfer message sequence number | 00000006 | Sixth message |
| 250 | Card issuer to acquirer |
| 68 | Batch/file transfer message control |   |   |
| Batch/file transfer acknowledgement code | 7 | Negative acknowledgement, repeat requested |
| Batch/file transfer message sequence number | 00000005 | All messages up to the fifth one correctly received |
| 240 | Acquirer to card issuer |
| 68 | Batch/file transfer message control |   |   |
| Batch/file transfer acknowledgement code | 0 | No acknowledgement required |
| Batch/file transfer message sequence number | 00000005 | Fifth message |
| 240 | Acquirer to card issuer |
| 68 | Batch/file transfer message control |   |   |
| Batch/file transfer acknowledgement code | 0 | No acknowledgement required |
| Batch/file transfer message sequence number | 00000006 | Sixth message |
| 240 | Acquirer to card issuer |
| 68 | Batch/file transfer message control |   |   |
| Batch/file transfer acknowledgement code | 2 | Acknowledgement required, end of transfer |
| Batch/file transfer message sequence number | 00000007 | Seventh message |
| 250 | Card issuer to acquirer |
| 68 | Batch/file transfer message control |   |   |
| Batch/file transfer acknowledgement code | 3 | Positive acknowledgement |
| Batch/file transfer message sequence number | 00000007 | All messages up to the seventh one correctly received |

**Table G.7 — Reconciliation**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **MTI** | **Bit** | **Data element name** | **Value** | **Meaning** |
| 520 | Acquirer to card issuer |
| 530 | Card issuer to acquirer |
| 39 | Action code | 8000 | Accepted |

**Table G.8 — End of acquirer batch transfer**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **MTI** | **Bit** | **Data element name** | **Value** | **Meaning** |
| 844 | Acquirer to card issuer |
| 24 | Function code | 842 | End of batch transfer |
| 25 | Message reason code | 8002 | End batch |
| 69 | Batch/file transfer control data |   |   |
| Batch/file transfer message count | 0000000 | Number of messages in the batch |
| Batch/file transfer file identification | ..test batch 1 | Batch name |

**Table G.9 — Start of card issuer batch transfer**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **MTI** | **Bit** | **Data element name** | **Value** | **Meaning** |
| 844 | Card issuer to acquirer |
| 24 | Function code | 841 | Start batch transfer |
| 25 | Message reason code | 8000 | Start transfer, no recovery procedure |
| 69 | Batch/file transfer control data |   |   |
| Batch/file transfer message count | 00000004 | Number of messages in the batch |
| Batch/file transfer file identification | ..test batch 2 | Batch name |

**Table G.10 — Card issuer batch details**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **MTI** | **Bit** | **Data element name** | **Value** | **Meaning** |
| 442 | Card issuer to acquirer |
| 68 | Batch/file transfer message control |   |   |
| Batch/file transfer acknowledgement code | 0 | No acknowledgement required |
| Batch/file transfer message sequence number | 00000001 | First message |
| 442 | Card issuer to acquirer |
| 68 | Batch/file transfer message control |   |   |
| Batch/file transfer acknowledgement code | 0 | No acknowledgement required |
| Batch/file transfer message sequence number | 00000002 | Second message |
| 442 | Card issuer to acquirer |
| 68 | Batch/file transfer message control |   |   |
| Batch/file transfer acknowledgement code | 0 | No acknowledgement required |
| Batch/file transfer message sequence number | 00000003 | Third message |
| 442 | Card issuer to acquirer |
| 68 | Batch/file transfer message control |   |   |
| Batch/file transfer acknowledgement code | 0 | No acknowledgement required |
| Batch/file transfer message sequence number | 00000004 | Fourth message |

**Table G.11 — End of card issuer batch transfer**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **MTI** | **Bit** | **Data element name** | **Value** | **Meaning** |
| 844 | Card issuer to acquirer |
| 24 | Function code | 842 | End of batch transfer |
| 25 | Message reason code | 8002 | End batch |
|   | 69 | Batch/file transfer control data |   |   |
| Batch/file transfer message count | 0000000 | Number of messages in the batch |
| Batch/file transfer file identification | ..test batch 2 | Batch name |

**Example of the management of interruptions**

This example shows how a restart is managed if an interruption occurs during a batch transfer. The following parameters are assumed:

a) batch transfer is initiated by the acquirer;

b) batch consists of seven financial presentment notifications with a frequency of acknowledgement every four messages.

Figure G.3 shows the messages flows and Table G.12 to Table G.15 give the relevant data element contents.



**Figure G.3 — Example of the management of interruptions message flows**

**Table G.12 — Start of acquirer batch transfer**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **MTI** | **Bit** | **Data element name** | **Value** | **Meaning** |
| 804 | Acquirer to card issuer |
| 24 | Function code | 841 | Start of batch/file transfer |
| 25 | Message reason code | 8000 | Start transfer, no recovery procedure |
| 69 | Batch/file transfer control data |   |   |
|   | Batch/file transfer message count | 00000007 | Number of messages in the batch |
| Batch/file transfer file identification | ..test batch 3 | Batch name |
| 814 | Card issuer to acquirer |
| 24 | Function code | 841 | Start batch transfer |
| 25 | Message reason code | 8000 | Start transfer, no recovery procedure |
| 69 | Batch/file transfer control data |   |   |
| Batch/file transfer message count | 00000007 | Number of messages in the batch |
| Batch/file transfer file identification | ..test batch 3 | Batch name |

**Table G.13 — Acquirer batch details**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **MTI** | **Bit** | **Data element name** | **Value** | **Meaning** |
| 240 | Acquirer to card issuer |
| 68 | Batch/file transfer message control |   |   |
| Batch/file transfer acknowledgement code | 0 | No acknowledgement required |
| Batch/file transfer message sequence number | 00000001 | First message |
| 240 | Acquirer to card issuer |
| 68 | Batch/file transfer message control |   |   |
| Batch/file transfer acknowledgement code | 0 | No acknowledgement required |
| Batch/file transfer message sequence number | 00000002 | Second message |
| 240 | Acquirer to card issuer |
| 68 | Batch/file transfer message control |   |   |
| Batch/file transfer acknowledgement code | 1 | Acknowledgement required |
| Batch/file transfer message sequence number | 00000003 | Third message |
| 250 | Card issuer to acquirer |
| 68 | Batch/file transfer message control |   |   |
| Batch/file transfer acknowledgement code | 3 | Positive acknowledgement |
| Batch/file transfer message sequence number | 00000003 | All messages up to the third one correctly received |
| 240 | Acquirer to card issuer |
| 68 | Batch/file transfer message control |   |   |
| Batch/file transfer acknowledgement code | 0 | No acknowledgement required |
| Batch/file transfer message sequence number | 00000004 | Fourth message |
| 240 | Acquirer to card issuer |
| 68 | Batch/file transfer message control |   |   |
| Batch/file transfer acknowledgement code | 0 | No Acknowledgement required |
| Batch/file transfer message sequence number | 00000005 | Fifth message |
| 240 | Acquirer to card issuer |
| 68 | Batch/file transfer message control |   |   |
| Batch/file transfer acknowledgement code | 1 | Acknowledgement required |
| Batch/file transfer message sequence number | 00000006 | Sixth message |
| 250 | Card issuer to acquirer |
| 68 | Batch/file transfer message control |   |   |
| Batch/file transfer acknowledgement code | 7 | Negative acknowledgement, repeat requested |
| Batch/file transfer message sequence number | 00000005 | All messages up to the fifth one correctly received |
| 240 | Acquirer to card issuer |
| 68 | Batch/file transfer message control |   |   |
| Batch/file transfer acknowledgement code | 0 | No acknowledgement required |
| Batch/file transfer message sequence number | 00000005 | Fifth message |
| 240 | Acquirer to card issuer |
| 68 | Batch/file transfer message control |   |   |
| Batch/file transfer acknowledgement code | 0 | No acknowledgement required |
| Batch/file transfer message sequence number | 00000006 | Sixth message |
| 240 | Acquirer to card issuer |
| 68 | Batch/file transfer message control |   |   |
| Batch/file transfer acknowledgement code | 2 | Acknowledgement required, end of transfer |
| Batch/file transfer message sequence number | 00000007 | Seventh message |
| 250 | Card issuer to acquirer |
| 68 | Batch/file transfer message control |   |   |
| Batch/file transfer acknowledgement code | 3 | Positive acknowledgement |
| Batch/file transfer message sequence number | 00000007 | All messages up to the seventh one correctly received |

**Table G.14 — Reconciliation**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **MTI** | **Bit** | **Data element name** | **Value** | **Meaning** |
| 520 | Acquirer to card issuer |
| 530 | Card issuer to acquirer |
| 39 | Action code | 8000 | Accepted |

**Table G.15 — End of acquirer batch transfer**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **MTI** | **Bit** | **Data element name** | **Value** | **Meaning** |
| 844 | Acquirer to card issuer |
| 24 | Function code | 842 | End batch transfer |
| 25 | Message reason code | 8002 | End batch |
| 69 | Batch/file transfer control data |   |   |
| Batch/file transfer message count | 0 | Number of messages in the batch |
| Batch/file transfer file identification | ..test batch 3 | Batch name |

**Example of a simple batch transfer**

This example shows a simple batch transfer with no other activity. The following parameters are assumed:

a) batch transfer is initiated by acquirer;

b) batch consists of three financial presentment notifications and one fee collection message;

c) there are no acknowledgements.

Figure G.4 shows the messages flows and Table G.16 to Table G.21 give the relevant data element contents.



**Figure G.4 — Example simple batch transfer message flows**

**Table G.16 — Start of acquirer batch transfer**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **MTI** | **Bit** | **Data element name** | **Value** | **Meaning** |
| 804 | Acquirer to card issuer |
| 24 | Function code | 841 | Start batch transfer |
| 25 | Message reason code | 8000 | Start transfer, no recovery procedure |
| 69 | Batch/file transfer control data |   |   |
| Batch/file transfer message count | 00000007 | Number of messages in the batch |
| Batch/file transfer file identification | ..test batch 4 | Batch name |
| 814 | Card issuer to acquirer |
| 24 | Function code | 841 | Start batch transfer |
| 39 | Action code | 8000 | Accepted |
| 69 | Batch/file transfer control data |   |   |
| Batch/file transfer message count | 00000007 | Number of messages in the batch |
| Batch/file transfer file identification | test batch 4 | Batch name |

**Table G.17 — Acquirer batch details**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **MTI** | **Bit** | **Data element name** | **Value** | **Meaning** |
| 240 | Acquirer to card issuer |
| 68 | Batch/file transfer message control |   |   |
|   | Batch/file transfer acknowledgement code | 0 | No acknowledgement required |
| Batch/file transfer message sequence count | 00000001 | First message |
| 240 | Acquirer to card issuer |
| 68 | Batch/file transfer message control |   |   |
| Batch/file transfer acknowledgement code | 0 | No acknowledgement required |
| Batch/file transfer message sequence count | 00000002 | Second message |
| 240 | Acquirer to card issuer |
| 68 | Batch/file transfer message control |   |   |
| Batch/file transfer acknowledgement code | 0 | Acknowledgement required |
| Batch/file transfer message sequence count | 00000003 | Third message |
| 240 | Acquirer to card issuer |
| 68 | Batch/file transfer message control |   |   |
| Batch/file transfer acknowledgement code | 1 | Acknowledgement required |
| Batch/file transfer message sequence count | 00000004 | Fourth message |
| 250 | Card issuer to acquirer |
| 68 | Batch/file transfer message control |   |   |
| Batch/file transfer acknowledgement code | 3 | Positive acknowledgement |
| Batch/file transfer message sequence count | 00000004 | All messages up to the fourth one correctly received |
| 240 | Acquirer to card issuer |
| 68 | Batch/file transfer message control |   |   |
| Batch/file transfer acknowledgement code | 0 | No acknowledgement required |
| Batch/file transfer message sequence count | 00000005 | Fifth message |
| 240 | Acquirer to card issuer |
| 68 | Batch/file transfer message control |   |   |
| Batch/file transfer acknowledgement code | 0 | No acknowledgement required |
| Batch/file transfer message sequence count | 00000006 | Sixth message |
| Connection interrupted |

**Table G.18 — Restart of acquirer batch transfer**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **MTI** | **Bit** | **Data element name** | **Value** | **Meaning** |
|   | Connection interrupted |
| 804 | Acquirer to card issuer |
| 24 | Function code | 841 | Start batch transfer |
| 25 | Message reason code | 8001 | Start batch, recovery procedure |
| 69 | Batch/file transfer control data |   |   |
| Batch/file transfer message count | 00000007 | Number of financial presentment notifications |
| Batch/file transfer file identification | test batch 4 | File name |
| 814 | Card issuer to acquirer |
| 24 | Function code | 841 | Start batch transfer |
| 39 | Action code | 8000 | Accepted |
| 69 | Batch/file transfer control data |   |   |
| Batch/file transfer message count | 00000007 | Number of financial presentment notifications |
| Batch/file transfer file identification | test batch 4 | File name |

**Table G.19 — Continue the batch transfer**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **MTI** | **Bit** | **Data element name** | **Value** | **Meaning** |
| 240 | Acquirer to card issuer |
| 68 | Batch/file transfer message control |   |   |
| Batch/file transfer acknowledgement code | 0 | No acknowledgement required |
| Batch/file transfer message sequence number | 00000005 | Fifth message |
| 240 | Acquirer to card issuer |
| 68 | Batch/file transfer message control |   |   |
| Batch/file transfer acknowledgement code | 0 | No acknowledgement required |
| Batch/file transfer message sequence number | 00000006 | Sixth message |
| 240 | Acquirer to card issuer |
| 68 | Batch/file transfer message control |   |   |
| Batch/file transfer acknowledgement code | 2 | Acknowledgement required, end of transfer |
| Batch/file transfer message sequence number | 00000007 | Seventh message |
| 250 | Card issuer to acquirer |
| 68 | Batch/file transfer message control |   |   |
| Batch/file transfer acknowledgement code | 3 | Positive acknowledgement |
| Batch/file transfer message sequence number | 00000007 | All messages up to the seventh one correctly received |

**Table G.20 — Reconciliation**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **MTI** | **Bit** | **Data element name** | **Value** | **Meaning** |
| 520 | Acquirer to card issuer |
| 530 | Card issuer to acquirer |
| 39 | Action code | 8000 | Accepted |

**Table G.21 — End of acquirer batch transfer**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **MTI** | **Bit** | **Data element name** | **Value** | **Meaning** |
| 844 | Acquirer to card issuer |
| 24 | Function code | 842 | End batch transfer |
| 25 | Message reason code | 8002 | End batch |
| 69 | Batch/file transfer control data |   |   |
| Batch/file transfer message count | 0000000 | Number of messages in the batch |
| Batch/file transfer file identification | test batch 4 | Batch name |