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3 TRANSACTIONS AND REPORTS, PROCESSING

History of the versions

Date	Ver.	Description
2004-05-03	1.0	New translation, published on www.vpc.se.
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3.1 Transactions, general

At present there are two different transaction types defined for communication with the VPC system. These transaction types are called TYPE 1 and TYPE 2 and have the following appearance

TYPE 1-transaction

TRANSACTION HEADER	APPLICATION DATA	APPLICATION DATA	APPLICATION DATA	etc..
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TYPE 2-transaction

APPLICATION DATA	APPLICATION DATA	APPLICATION DATA	APPLICATION DATA	etc..
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Communication with the VPC system can be made either interactively (where only transaction of TYPE 1 can be used) or via batch transfer.

3.1.1 Interactive transfer

Interactive transfer takes place via computer-to-computer connection and entails the processing in real time of each separate transaction at VPC, after which any reply transaction is immediately sent by return.

3.1.2 Batch transfer

Batch transfer means that a number of different transactions are collected in a sequential file, which are then transferred to or from VPC using a file transfer protocol. The processing of the separate transactions begins once the file has been transferred in its entirety. The reply from VPC is sent when all the transactions in the file have been processed.

All files that are sent to or from VPC should contain records with varying record lengths. The maximum record length that VPC processes is 3210 characters user data, that is a maximum of 3214 characters including the length specification.

The transactions in a file which is used for batch transfer may be either TYPE 1 or TYPE 2, though each separate file may only contain one of the two types at a time.

The transaction file used for batch transfer between VPC and the affiliated AO should have the following appearance:

FILE HEADER	TRANSACTION	TRANSACTION	TRANSACTION	etc.
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3.1.3 File header

This is the common start record for all files that are sent to or from VPC.

The file header consists of either FILE-HEADER-TO-VPC or FILE-HEADER-FROM-VPC depending on the direction in which the communication is taking place.

Some of the fields in the file header files sent to VPC are used for the construction of the register name (data set name) in the reply file from VPC.

How these fields, ID-FILE-REPLY and ID-FILE-REPLY2, should be filled in and what effect they have is described below in the section, “Data set name from VPC”.

FILE-HEADER-TO-VPC

See layout for - [ZFTF0011](#)

Terms in FILE-HEADER-TO-VPC

ID-FILE-IN	Required information.
ID-FILE-REPLY	Required information for those AOs that have resident file transfer program (FTP) and that wish to have a different name on the transferred file from the one that is stated in the order register. Otherwise the field must contain a blank character .

FILE-HEADER-FROM-VPC

See layout for - [ZFTF1211](#)

3.1.4 Data set name from VPC

Those AOs that do not use resident file transfer programs, FTPs, should set the register name when receiving the register from VPC.

These AOs should not fill in the field ID-FILE-REPLY.

For those AOs that use resident file transfer programs, the following applies:

- The register name (data set name) on files transferred from VPC is set as follows:
 - If ID-FILE-REPLY in the FILE-HEADER-TO-VPC is filled in, the data set name is set according to point 2 below
 - If ID-FILE-REPLY in the FILE-HEADER-TO-VPC is blank, the data set name stated in the order register is used (see description under the section “Line and order register” below)
 - If ID-FILE-REPLY in the FILE-HEADER-TO-VPC is blank and the data set name is **not** stated in the order register, the transfer must be ordered using transaction ZOVE, where the field “Required file reply” must be filled in for the register ordered.

Note! The information in the field “Required file reply” in transaction ZOVE always overrides what has been stated in ID-FILE-REPLY in the FILE-HEADER-TO-VPC or else in the data set name in the order register.

1. **Files not initiated by VPC**

These files are given the name that appears in the corresponding order in the VPC order register.

2. **Files sent as file replies to an AO**

These files are given the value specified in the field ID-FILE-REPLY as a prefix. The prefix is followed by “VPC” and further information, which in this case is taken from the first four characters in the field ID-FILE-REPLY2 (see the example below).

Any further information from ID-FILE-REPLY2 does not apply to files that are sent via TCP/IP-FTP.

In the case of files sent in via TCP/IP-FTP, if the first four characters in the field ID-FILE-REPLY2 are filled in, this information is used as the receiver system for FTP so that VPC is able to send to an alternative IP address. This FTP information must be registered by VPC. In other words, if the first four characters in ID-FILE-REPLY2 are filled in, VPC must register this information before TCP/IP-FTP file transfer can be effected. The reply file via TCP/IP-FTP is set according to VPC standards (see example below).

Example File sent as a reply file from VPC (example 1)

The field ID-FILE-REPLY in file to VPC XX.YYY
The field ID-FILE-REPLY2 in file to VPC RECEIVING VPCREG

The register name for TCP/IP-FTP becomes XX.YYY.VPC.RECE

The fields ID-FILE-REPLY and ID-FILE-REPLY2 are returned unaltered.

Example File sent as reply file from VPC (example 2)

The field ID-FILE-REPLY (the prefix) XX.YYY
The field ID-FILE-REPLY2 bbbbRECEIV VPCREG where bbbb is blank

The register name for TCP/IP-FTP becomes XX.YYY.VPC

The fields ID-FILE-REPLY and ID-FILE-REPLY2 are returned unaltered.

3.1.5 Transactions of TYPE 1

Transactions that are to be processed in VPC's online system are designated in this description as TYPE 1 transactions.

These transactions are composed of a transaction header and successive application data.

Transaction header

The transaction header consists of either TRANS-HEADER-TO-VPC or TRANS-HEADER-FROM-VPC and consists of status and identification details.

The application data consists of those data fields that are used by the transaction in question. In transactions from VPC, each separate data field is always preceded by an attribute field, which is used by VPC to indicate whether the subsequent field is incorrect. An incorrect field is indicated by the attribute field containing the value C0C9 hexadecimally, whereas other values in the attribute field indicate valid fields.

Trans-header-to-vpc

See layout for - [THEADTO](#)

Terms in TRANS-HEADER-TO-VPC

CODE-TRANS-IN	Required information
ID-SEARCH-CODE	Required information

Trans-header-from-vpc

See layout for - [THEADFROM](#)

Terms in TRANS-HEADER-FROM-VPC

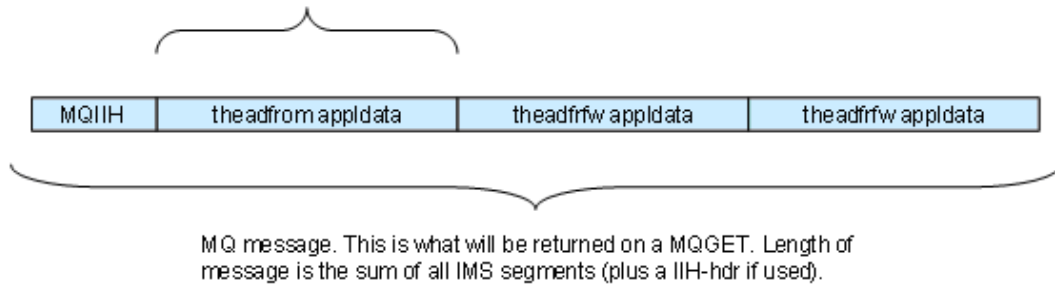
CODE-ACTION	The field normally contains the code set by the AO, but may have been changed by VPC.
ID-SEARCH-CODE	The field normally contains the keys set by the AO, but may have been changed by VPC.

Trans-header-from-vpc-browse

See layout for - [THEADFRFW](#)

The transaction header from VPC for browsing pages 2 to n for MQ communication contains only the length field and acknowledgement details. All pages are sent in one mq-message.

One IMS segment. Corresponds to one 3270 page. The IMS-LL-BIN field in the header is the length of the segment. The sum of all IMS-LL-BIN fields (plus length of MQIIH if used) is the length of the MQ message.



3.1.6 Transactions of TYPE 2

Transactions of type 2 are always preceded by some transaction header and are therefore described in full in the particular application section where they occur.

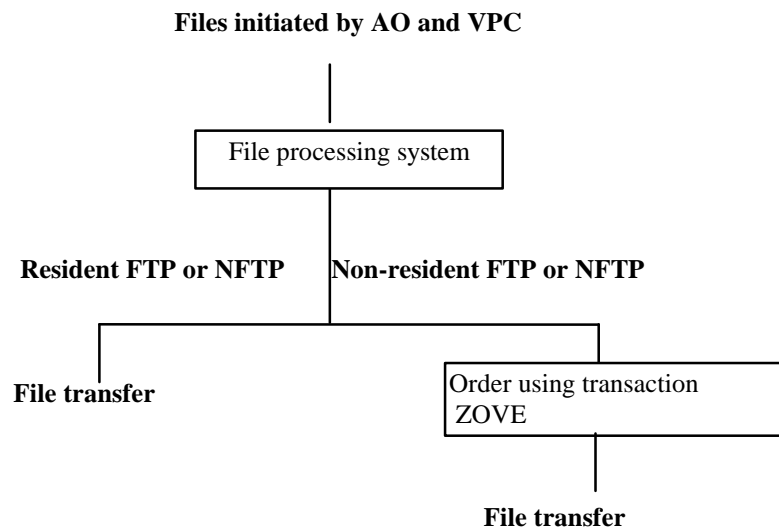
3.2 File transfer, general

A special system has been designed for handling file transfers between VPC and the account operators.

The function of the system is to receive files from the application systems at both VPC and the account operators, and to deal with the transfer of these files.

The system enables the AO to keep track, via online transactions, of files ready for transfer and to decide when the transfer shall take place. File transfers occur automatically, however, in the case of those account operators that have resident FTP or NFTP.

3.2.1 File transfer overview



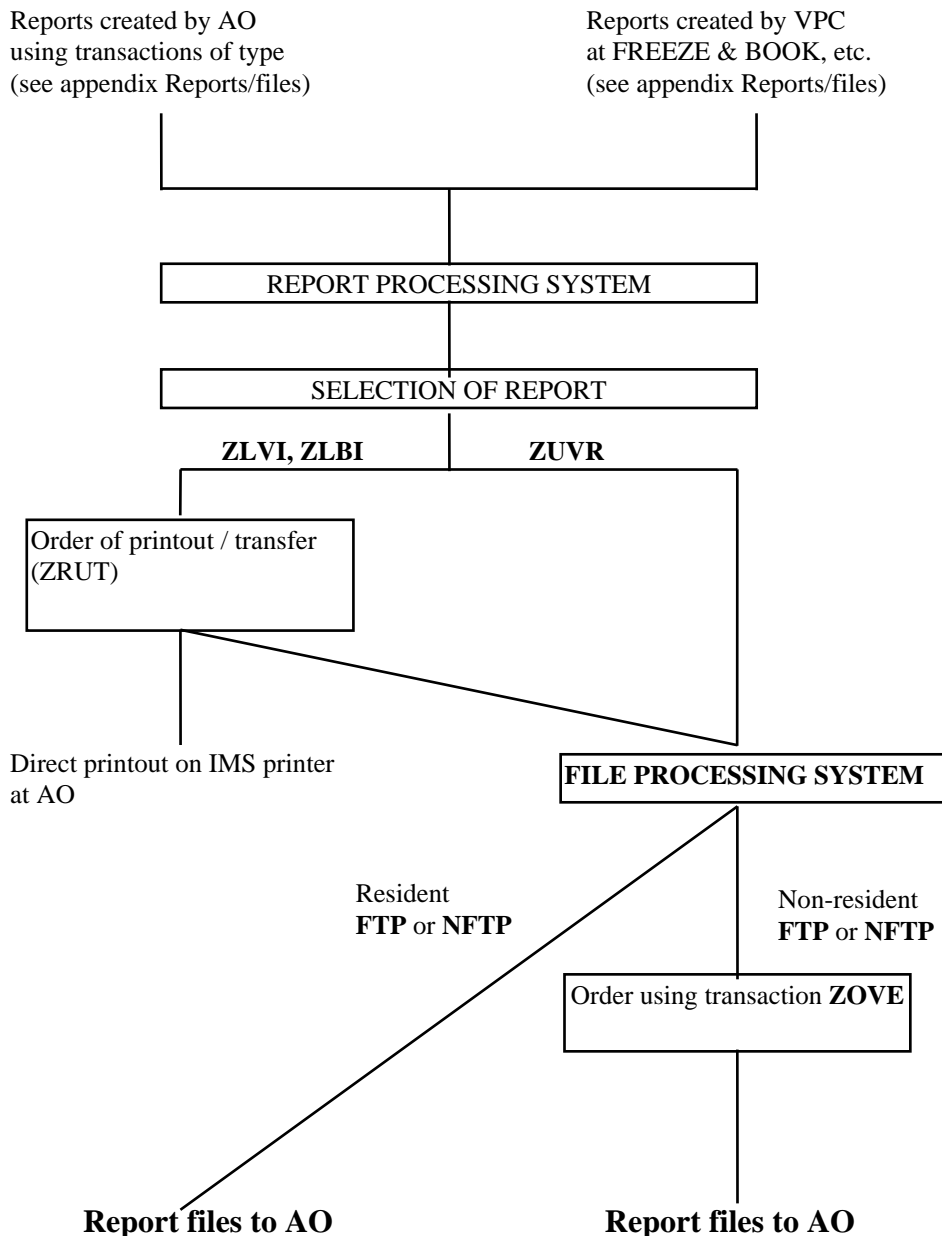
3.3 Reports, general

A special system has been designed to process reports from the account operators.

The function of the system is to receive reports from the application program of the VPC system, store them in a list database and deal with the transfer of the report to the account operator.

The system enables the account operator to monitor stored reports via online transactions and to decide when to make a printout. The printout of reports may be made either on a direct online printer, known as an IMS printer, or by printing a transferred sequential file at the account operator's.

3.3.1 Overview report production



For each order VPC receives for the production of a report, a reply is sent as confirmation that the report has been produced.

3.3.2 Printout of reports at the AO

Reports can either be printed directly at the AO on an IMS printer, or retrieved as a sequential file for printout later.

The transfer of reports from VPC can be ordered using special terminal transactions (see SERVICE-TRANSACTIONS below).

The following applies for reports retrievable via the file processing system:

- The report file contains a FILE-HEADER and, for each report in the file, a RPT-HEADER followed by RPT-LINES.
- The report lines consist of pre-edited list lines, that is, they contain headings, page numbers, lead texts, etc. and are ready for immediate printout.
- The editing is standard for all reports, which allows a printout to be made using one and the same print program.

Report header

See layout for - [ZLPF2311](#)

Report line

See layout for - [ZLPF2312](#)

3.4 Report transactions

These transactions are used to order printouts of previously created reports.

3.4.1.1 ZLBI – Ordered reports, list

The transaction displays a list of reports created at the request of the customer. The transaction permits the printout of certain reports to be ordered.

3.4.1.2 ZLVI – VPC reports, list

The transaction displays a list of reports produced by the VPC system (known as Batch reports). The transaction permits the printout of certain reports to be ordered.

3.4.1.3 ZUVR – VPC reports, collocation (File transfer)

The transaction displays a collocation of those reports not yet printed for the AO's own customer. The transaction permits the printout of all such reports to be ordered.

3.4.1.4 ZRUT – Transfer of reports

The transaction displays a number of reports that have been selected using transactions ZLVI or ZLBI. Note that transaction ZRUT may only be reached via ZLVI/ZLBI. The transaction permits the ordering of the printout or file transfer of these reports.

Note that these transactions are only accessible from a VPC-connected terminal (i.e. not via transactions of Type 1).

3.5 File transfer transactions

These transactions are mainly intended for those AOs that do not make use of resident file transfer programs, but may also be used by others when requesting the resending of a file previously transferred.

3.5.1.1 ZOVE – Ordering the transfer of registers

See layout for - ZOVE

To VPC [ZFTF610I](#)
From VPC [ZFTF610O](#)

To VPC

Field of application:

The transaction is used either for enquiries relating to prepared lists of registers, or to order the transfer of all or some of the registers.

Enquiry / order of the transfer of register(s)

The terms in the TRANS-HEADER must contain the following values in addition to those described earlier in the section TRANS-HEADER-TO-VPC.

CODE-TRANS-IN	ZOVE
ID-SEARCH-CODE	blank
CODE-ACTION	blank (enquiry) UP (transfer order)

For **enquiry** about register(s) ready for transfer, the transaction can comprise simply TRANS-HEADER, and in this case no fields in the data section need to be filled in.

For **order** of transfer, the fields are filled in as follows:

CODE-ALL	= J (Yes) if all registers not yet ordered are required. = N (No) if only certain registers are required.
CODE-SELECT-FILE-	1-8 filled in if limiting the selection to a certain file identity is requested. Note that if CODE-ALL has been set = J, this field has no function.
CODE-SELECT	Set to 'S' if the register is required. This alternative may be combined with selection according to the field CODE-ALL or CODE-SELECT-FILE.
ID-FILE-REPLY2	Same as in corresponding enquiry.
DATE-RECEIVED-VPC	Taken from corresponding field in the reply received to the enquiry.
TIME-RECEIVED-VPC	Taken from corresponding field in the reply received to the enquiry.
CODE-TRANS-METHOD	New transfer method if customer wants to change the one used as standard. For line register, see special description in the section "Line and order register" below.
ID-FILE-REPLY	See description of file header above.

Fields in the transaction that are not used/needed when ordering the transfer of registers may be left blank or filled in with a zero.

The appropriate method when ordering the transfer of registers is as follows:

1. Enquiry transaction is sent to VPC.
2. Reply transaction with a list of registers ready for transfer is received from VPC.
3. Those files that are requested for transfer are marked by setting CODE-SELECT = S in the relevant OCCURS-line (FILE-LINE11). An alternative method is to use CODE-ALL or CODE-SELECT-FILE.
4. Other fields are filled in as described below.
5. The transaction is sent once again to VPC, and the file transfer starts automatically.

From VPC

Field of application:

Used to give a status report in reply to enquiry/order transactions sent to VPC.

In **reply to enquiry**, the data section of the transaction contains a list of the customer's registers that are ready for transfer and which correspond to the selection criteria in the enquiry transaction.

NB! The reply can consist of several transactions if there are more registers than will fit into the space available in a single transaction.

In **reply to order**, the data section of the transaction contains acknowledgement information.

3.6 Transactions to the line and order register

These transactions are used either to make enquiries to the VPC line and order register, or to make changes to the standing orders that exist in the order register.

The transactions that are available at present are:

3.6.1.1 ZFLL - Lines, list

The transaction displays a catalogue of the lines that are entered in the VPC line register for a particular participant.

3.6.1.2 ZFFL - Files, list

The transaction displays a catalogue of the files/lists created in the VPC system for transfer to the participant. The transaction permits the transition to a detailed screen for a selected file/list.

3.6.1.3 ZFFI - File information

The transaction displays a detailed screen of a particular file/list created in the VPC system for transfer to a participant.

3.6.1.4 ZFFF - File enquiry

The transaction displays a detailed screen of a particular file/list created in the VPC system for transfer to a participant.

3.6.1.5 ZFBL – Orders, list

The transaction displays a list of the standing orders that are registered in the VPC order register for a particular participant. The transaction permits the transition to a detailed screen for a selected order.

3.6.1.6 ZFBV – File order register maintenance

The transaction permits a new version, change or removal of a standing order in the VPC order register.

Note that these transactions are only accessible from a VPC-connected terminal (i.e. not via transactions of Type 1).

3.7 The line and order register

A line and order register has been established at VPC for the administration of communication between VPC and those participants that are connected to VPC.

3.7.1 The line register

The line register contains a unique identifier for each line between VPC and the participants connected. The line identifier consists partly of an ID-ACCOUNT-OPERATOR (or ID-NOMINEE) and partly of a line number Lnn, where nn is a serial number from 1-99. Details of transfer method (FTP or NFTP), DNS entry (if FTP) or the identity of the sending or receiving LU, Logical Unit, (if NFTP) are stored for each such identity.

3.7.2 The order register

For each file/list to be transferred from VPC to a participant connected to VPC, an order must be entered in the order register. The order register contains information on the recipient's identity, which line is to be used for transfer, which data set name a particular file should have at the recipient's, the recipient's allocation parameters, and so on.

Note that the mere fact that an order exists for a certain file/list, does **not** automatically mean that the file/list will be transferred to the participant. The order simply shows **how** the transfer is to be made, and so on. The transfer can be ordered in the usual way by using the transactions ZOVE or ZLVI.