



IBM Software Group

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Business events proposal

Tony Cresswell

cressto@us.ibm.com

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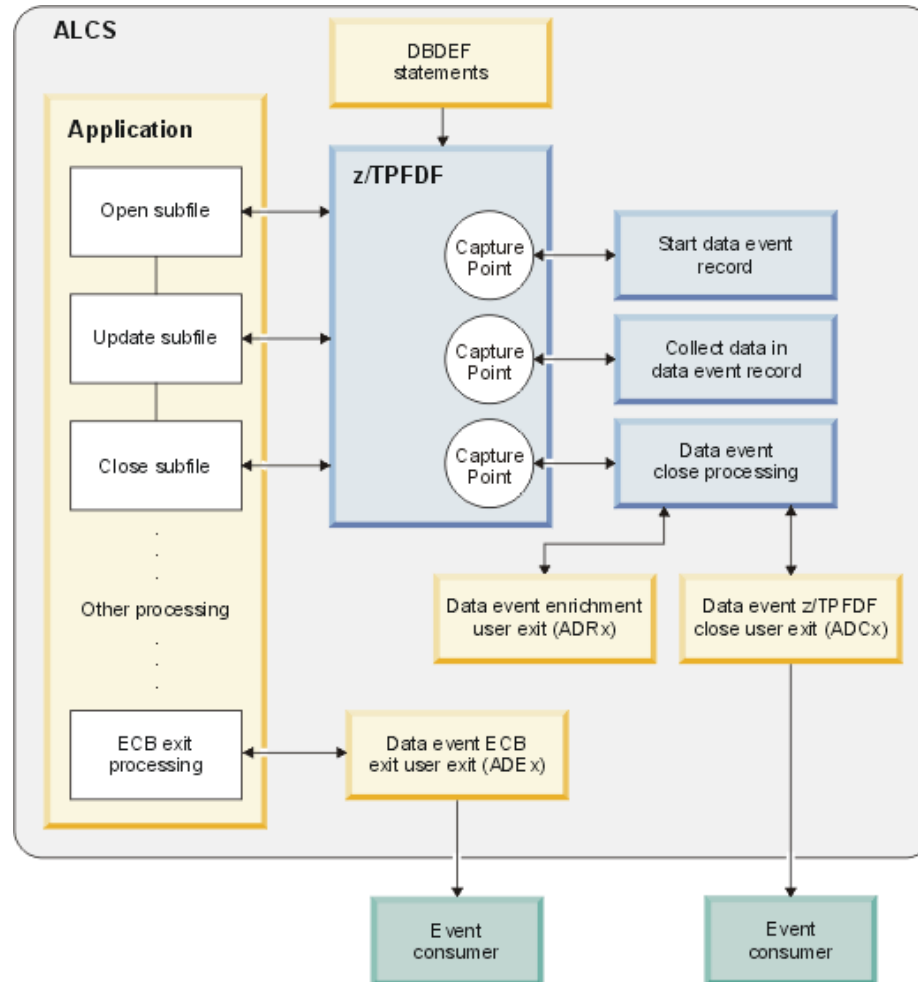
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Business events - Data events

- Business events are anything which is deemed significant to the business. This is decided by the customer
- Data events are a type of business events and deal with changes to data which are deemed significant to the business
- The purpose of this proposal is to provide an automated method of transmitting data from ALCS to another platform for the purpose of business analysis of that data. The data will be transmitted in real-time as it is modified, created or deleted.
- No application code changes should be required to make this happen.
- This proposal only applies to TPFDF databases and is based on the z/TPFDF implementation of this concept.

Data events – process flow



Data events – processing overview (1)

- A Data Event record will be created for each TPFDF subfile which is opened and event data collection is enabled in the DBDEF. It will use heap storage
- All logical records that are changed can be collected or just the logical records which have specified primary keys.
- The application closes the TPFDF subfile. The data event record is completed
- If a data enrichment program is defined for this subfile, it will be called to add data to the event record -
 - ▶ Extra context data can be added (ECB fields, other state information)
 - ▶ This will be a user exit program
 - ▶ Each subfile can have a different user exit
- If the close user exit is specified, it will be called at this point –
 - ▶ This program will decide if the data event record should be sent. All of it, part of it or none of it
 - ▶ Decide where to send the data event record using the appropriate communications transport
 - ▶ The data event record (heap storage) will be released by the communications transport routines

Data events – processing overview (2)

- If the ECB exit user exit is specified, the data event record will be added to a queue to be processed when the ECB issues EXITC.
 - ▶ When the ECB issues EXITC, a user exit will be called from the EXITC service routine.
 - ▶ The user exit will process the queue of data event records. For each data event record the same processing as in the close user exit will be done
 - ▶ This user exit can process data events for different subfiles
 - ▶ Each subfile can have a different user exit
- Data event parameters will be in the Database subtable (DBS)
- Only one of the ECB exit or DF subfile CLOSE user exits can be selected - not both

Sample DBDEF definitions (1)

- DBDEF for subfiles with data event parameters
 - ▶ ..., DEVCLCT=UPDATES, DEVDSPCH=(CLOSUE,ADC1),
 - ▶ DEVENRCH=ADR1,.....

- ▶ The above shows -
- ▶ All changed records are collected
- ▶ User exit program ADC1 is called when the subfile is closed (DBCLOS or dfclos)
- ▶ The data enrichment program ADR1 is called to add extra context data

Sample DBDEF definitions (2)

- DBDEF for subfiles with data event parameters
 - ▶ ..., DEVCLCT=UPDATES, DEVDSPCH=(EXITUE,ADE2),DEVPKY=x'80',...
 - ▶ The above shows -
 - ▶ Only logical records with primary key of 80 are collected
 - ▶ User exit program ADE2 is called when the ECB exits - EXITC
 - ▶ A data enrichment program is not called for this subfile

