① Overview

APP process

| java | C | ...... |

Shadow

Cache

Event Cache

Event Filter → DIF engine

② Cache

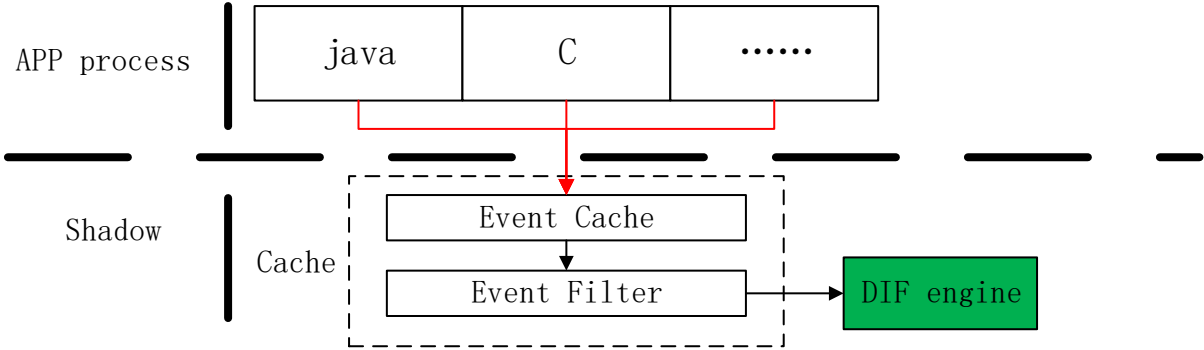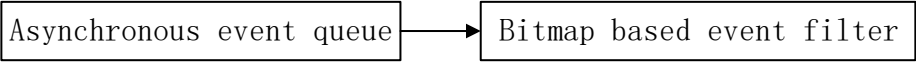| Asynchronous event queue | → | Bitmap based event filter |

Key1: multiple language execution unit share a Event Cache
Key2: High performance requirement for Event Filter by Event ID
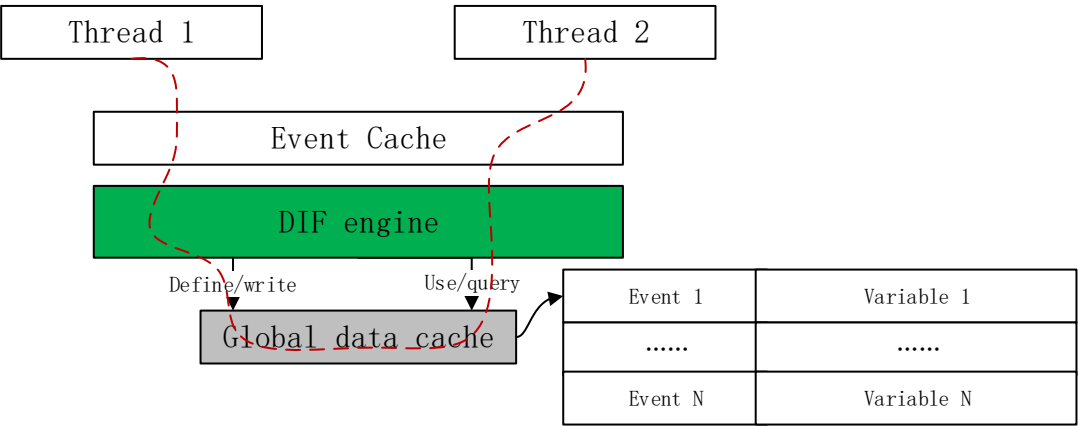**64bits Event ID Definition**:

| 4 | 4 | 14 | 18 | 24 |

4 bits language type: 15 languages
4 bits reserves: reserve for other purpose
14 bits function ID: 16K functions
18 bits block ID:256 K blocks
24 bits instruction ID: 16,384 K instructions

③ Multi-Thread Handling

Key1: Event queue synchronization
Key2: Global data flow between different threads

| Thread 1 | | Thread 2 |

Event Cache

DIF engine

Define/write   Use/query

Global data cache

Event 1	Variable 1
......	......
Event N	Variable N

④ Multi-Process Handling

| P1 | P.. | PN |

DFI   DFI   DFI

Merge-DFI

IPC data cache

Event 1	Variable 1
......	......
Event N	Variable N