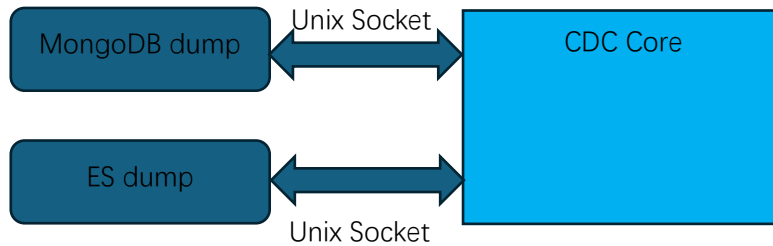


总体架构图



接入 cdc 必要的条件

1. Source 为各个 dump 工作程序（即二进制文件），由 cdc core 在收到 xpanel 下发任务时，根据任务类型启动对应二进制文件工作
2. Source 程序，需要支持—workDir, --serverUnixFile 启动参数，如果还有其他参数需要提前提供给 CDC。例如 ./redis_dump --workDir=/abc/xxx --serverUnixFile=./redis_dump.sock
3. Source 程序启动后，根据 serverUnixFile 文件，启动 unix socket，并监听该文件
4. CDC Core 和各 Source 程序之间是通过 unix socket 通信的，具体通信协议如下：

4.1 socket 包格式

```
-----  
|message_len| message      |  
-----
```

4.2 message 为 json 格式内容，具体如下

```
{"type":msg_type(整数), "data":""}
```

msg_type 类型为

```
enum class MessageType : uint32_t {  
    M_ReqInitCfg,           -- source 启动时，传入参数  
    M_ReqDumpJob,           -- dump 任务，添加/删除任务。具体参数  
    M_RspDumpJob,           -- dump 任务执行情况，  
    M_RspRowMsg,            -- source 获取具体数据，上报给 CDC Core  
    M_RspStateMsg           -- source 上报 dump 状态给 CDC Core  
}
```

具体 MessageType 类型详细对应 data 中数据

- M_ReqInitCfg, {"local_ip":"","...}
- M_ReqDumpJob {"url":"","pos":"","...}
- M_RspDumpJob {"error_code":"0", "error_msg":"xxx"}, 如果添加/删除 dump 任务成功，在 error_code=0,如果失败非 0 值，error_msg 为具体原因

- M_RspRowMsg 具体格式有 source 程序定义，例如

第一版本：

```
{"event_type":"INSERT","db_name":"postgres_$$_test","table_name":"t2","sql":"  
","isDdl":"0","gtid":"05817685-5ba6-11ef-9aef-0800277f54bd:80762","xid":"5-  
1724487143-415115","original_commit_timestamp":"172448715747  
0540","immediate_commit_timestamp":"1724487158115955","original_server_
```

version":"80026","immediate_server_version":"80026","data":[{"id":"98354","name":"'XXXX","age":"22","address":"'GGGGGGGG","salary":"7289"},{"id":"98355","name":"'SSSS","age":"11","address":"'JJJJJJ","salary":"8662"},{"id":"98356","name":"'RRRR","age":"26","address":"'TTTTTTTT","salary":"8660"},{"id":"98357","name":"'XXXX","age":"14","address":"'OOOOOOOO","salary":"9269"},{"id":"98358","name":"'SSSS","age":"2","address":"'H HHHHHH","salary":"137"},{"id":"98359","name":"'YYYY","age":"30","address":"'IIIIII","salary":"4534"},{"id":"98360","name":"'CCCC","age":"24","address":"'HHHH HHHH","salary":"3669"},{"id":"98361","name":"'SSSS","age":"31","address":"'CCCCC CCC","s alary":"5582"},{"id":"98362","name":"'MMMM","age":"10","address":"'HHHHHH HH","salary":"1679"},{"id":"98363","name":"'PPPP","age":"22","address":"'BBBBBBBB ","salary":"2476"},{"id":"98364","name":"'JJJJ","age":"27","address":"'DDDDDDDD"," salary":"244 9"},{"id":"98365","name":"'EEEE","age":"24","address":"'EEEEEEEE","salary":"824 8"},{"id":"98366","name":"'SSSS","age":"16","address":"'WWWWWWWW","salary":" 6453"},{"id":"98367","name":"'HHHH","age":"5","address":"'DDDDDDDD","salary":" 3281"},{"id":"98368","name":"'VVVV","age":"13","address":"'SSSSSSSS","salary":"4896"},{"id":"98369","name":"'GGGG","age":"27","address":"'BBBBBBBB","salary":"6842"},{"id":"98370","name":"'BBBB","age":"12","address":"'WWWWWWWW","salary":"6121"},{"id":"98371","name":"'ZZZZ","age":"32","address":"'WWWWWWWW","salary":"3023"},{"id":"98372","name":"'RRRR","age":"35","address":"'OOOOOOOO","salary":"7784"},{"id":"98373","name":"'QQQQ","age":"26","address":"'QQQQQQQQ","salary":"3358"},{"id":"98374","name":"'EEEE","age":"16","address":"'[[[[[[["salary":"4183"},{"id":"98375","name":"'PPPP","age":"3","address":"'TTTTTTTT","salary":"3810"},{"id":"98376","name":"'MMMM","age":"16","address":"'XXXXXXXX","salary":"6700"},{"id":"98377","name":"'FFFF","age":"33","address":"'JJJJJJ","salary":"2293"},{"id":"98378","name":"'HHHH","age":"7","address":"'WWWWWWWW","salary":"2096"}], "old":""}

第二版本：
改成字符串流方式，减少 json serialize/deserialize 系统开销

字段名	格式	说明
db_name	db 名长度(小端) + db 名，如果没有给长度为 0	库名
tb_name	tb 名长度(小端) + tb 名	表名
gtid		
sql		
column_num	uint32	列的数量
Column_names	多个，每个都是字符串长度 + 字符串内	列名

	容	
column_state	uint32, 如果不需要直接写 0	列属性
row_num	uint32	行数量
data	[len + str, len+str, len + str, ...] [len + str, len+str, len + str, ...] [len + str, len+str, len + str, ...]	具 体 数 据 , insert/update/delete
old	[len + str, len+str, len + str, ...] [len + str, len+str, len + str, ...] [len + str, len+str, len + str, ...]	如果为 update 类型, 为更新 前值

- M_RspStateMsg, source 程序定义, 一般上报 dump 状态等。