Step 1:应用本地还未应用完成的relay log

Step 2:分布式恢复，拉取本地不存在的事务到 relaylog-group_replication_recovery.000xx 使用 group_replication_recovery通道进行恢复

```
2023-10-18T11:13:50.319437+08:00 0 [Note] [MY-010536] [Repl] Relay log recovery skipped for group replication channel.
2023-10-18T11:13:50.320051+08:00 0 [Warning] [MY-010539] [Repl] Recovery from master pos 4 and file  for channel 'group_replication_applier'. Previous relay log pos and relay
log file had been set to 43205612, /greatdb/dbdata/datanode3317/log/relaylog-group_replication_applier.000012 respectively.
2023-10-18T11:13:50.330344+08:00 0 [Note] [MY-010536] [Repl] Relay log recovery skipped for group replication channel.
2023-10-18T11:13:50.331034+08:00 0 [Warning] [MY-010539] [Repl] Recovery from master pos 4 and file  for channel 'group_replication_recovery'. Previous relay log pos and rela
y log file had been set to 4, /greatdb/dbdata/datanode3317/log/relaylog-group_replication_recovery.000001 respectively.
2023-10-18T11:13:50.333483+08:00 0 [Note] [MY-011025] [Repl] Failed to start slave threads for channel ''.
2023-10-18T11:13:50.337963+08:00 6 [Note] [MY-010051] [Server] Event Scheduler: scheduler thread started with id 6
```

Step 3:初始化组通讯

```
2023-10-18T11:13:50.371390+08:00 2 [Note] [MY-011694] [Repl] Plugin group_replication reported: 'Initialized group communication with configuration: group_replication_group_n
ame: '33360000-0000-0000-0000-000000000000'; group_replication_local_address: '172.17.137.196:3917'; group_replication_group_seeds: '172.17.137.197:3917,172.17.137.198:3917,1
72.17.137.196:3917'; group_replication_bootstrap_group: 'false'; group_replication_poll_spin_loops: 0; group_replication_compression_threshold: 1000000; group_replication_ip_
allowlist: '0.0.0.0/0'; group_replication_communication_debug_options: 'GCS_DEBUG_NONE'; group_replication_member_expel_timeout: '5'; group_replication_communication_max_mess
age_size: 1048576; group_replication_message_cache_size: '1073741824u''
```

Step 4:change master for channel group_replication_applier

```
2023-10-18T11:13:50.371728+08:00 2 [Note] [MY-011071] [Repl] Plugin group_replication reported: 'Init certifier broadcast thread'
2023-10-18T11:13:50.372310+08:00 19 [System] [MY-010597] [Repl] 'CHANGE MASTER TO FOR CHANNEL 'group_replication_applier' executed'. Previous state master_host='<NULL>', mast
er_port= 0, master_log_pos= 4, master_bind=''. New state master_host='', master_port= 0, master_log_file='', master_log_pos= 4, master_bind=''.
2023-10-18T11:13:50.478016+08:00 29 [Note] [MY-010581] [Repl] Slave SQL thread for channel 'group_replication_applier' initialized, starting replication in log 'FIRST' at pos
ition 0, relay log '/greatdb/dbdata/datanode3317/log/relaylog-group_replication_applier.000014' position: 4
2023-10-18T11:13:50.478873+08:00 2 [Note] [MY-011670] [Repl] Plugin group_replication reported: 'Group Replication applier module successfully initialized!'
2023-10-18T11:13:50.483449+08:00 0 [Note] [MY-011735] [Repl] Plugin group_replication reported: '[GCS] 1697598830.483397 pid 32234 xcom_id 0 state xcom_fsm_init action x_fsm_
init'
```

Step 5:join group

```
2023-10-18T11:13:53.372269+08:00 0 [Note] [MY-011071] [Repl] Plugin group_replication reported: 'on_view_changed is called'
2023-10-18T11:13:53.372534+08:00 2 [System] [MY-011511] [Repl] Plugin group_replication reported: 'This server is working as secondary member with primary member address 172.
17.137.197:3317.'
```

Step 6:Distributed incremental recovery 分布式增量恢复

在组内选择一个节点作为 donor 节点

```
2023-10-18T11:13:54.374257+08:00 339 [Note] [MY-011576] [Repl] Plugin group_replication reported: 'Establishing group recovery connection with a possible donor. Attempt 1/1
2023-10-18T11:13:54.374417+08:00 0 [Note] [MY-011071] [Repl] Plugin group_replication reported: 'handle_leader_election_if_needed is activated,suggested_primary:'
2023-10-18T11:13:54.374515+08:00 0 [System] [MY-011503] [Repl] Plugin group_replication reported: 'Group membership changed to 172.17.137.198:3317, 172.17.137.197:3317, 172.1
7.137.196:3317 on view 16975379102212962:14.'
2023-10-18T11:13:54.374584+08:00 0 [Note] [MY-011825] [InnoDB] #### member_id=22b8afca-6cca-11ee-8e6c-00163e0dd9fa, member_role=SECONDARY, set srv_dtm_trx_disable=1
2023-10-18T11:13:54.394797+08:00 339 [System] [MY-010597] [Repl] 'CHANGE MASTER TO FOR CHANNEL 'group_replication_recovery' executed'. Previous state master_host='<NULL>', ma
ster_port= 0, master_log_file='', master_log_pos= 4, master_bind=''. New state master_host='172.17.137.197', master_port= 3317, master_log_file='', master_log_pos= 4, master_
bind=''.
2023-10-18T11:13:54.411910+08:00 339 [Note] [MY-011580] [Repl] Plugin group_replication reported: 'Establishing connection to a group replication recovery donor 22b4f861-6cc
-11ee-9ace-00163e2f1b48 at 172.17.137.197 port: 3317.'
2023-10-18T11:13:54.412905+08:00 340 [Warning] [MY-010897] [Repl] Storing MySQL user name or password information in the master info repository is not secure and is therefo
not recommended. Please consider using the USER and PASSWORD connection options for START SLAVE; see the 'START SLAVE Syntax' in the MySQL Manual for more information.
2023-10-18T11:13:54.414451+08:00 340 [System] [MY-010562] [Repl] Slave I/O thread for channel 'group_replication_recovery': connected to master 'greatdb@172.17.137.197:3317
replication started in log 'FIRST' at position 4
2023-10-18T11:13:54.461673+08:00 341 [Note] [MY-010581] [Repl] Slave SQL thread for channel 'group_replication_recovery' initialized, starting replication in log 'FIRST' at
osition 0, relay log '/greatdb/dbdata/datanode3317/log/relaylog-group_replication_recovery.000001' position: 4
2023-10-18T11:14:34.323987+08:00 0 [Note] [MY-011735] [Repl] Plugin group_replication reported: '[GCS] Failure reading from fd=374 n=18446744073709551615'
```

Step 7:退出分布式恢复,恢复online

```
unt) when Workers occupied = 62810 waited when Workers occupied = 215100666300
2023-10-18T11:18:02.425406+08:00 339 [Note] [MY-011585] [Repl] Plugin group_replication reported: 'Terminating existing group replication donor connection and purging the cor
responding logs.'
2023-10-18T11:18:02.436732+08:00 341 [Note] [MY-010587] [Repl] Slave SQL thread for channel 'group_replication_recovery' exiting, replication stopped in log 'binlog.000023' a
t position 374662982
2023-10-18T11:18:02.438638+08:00 340 [Note] [MY-011026] [Repl] Slave I/O thread killed while reading event for channel 'group_replication_recovery'.
2023-10-18T11:18:02.438744+08:00 340 [Note] [MY-010570] [Repl] Slave I/O thread exiting for channel 'group_replication_recovery', read up to log 'binlog.000023', position 409
079247
2023-10-18T11:18:02.540812+08:00 339 [System] [MY-010597] [Repl] 'CHANGE MASTER TO FOR CHANNEL 'group_replication_recovery' executed'. Previous state master_host='172.17.137.
197', master_port= 3317, master_log_file='', master_log_pos= 4, master_bind=''. New state master_host='<NULL>', master_port= 0, master_log_file='', master_log_pos= 4, master_
bind=''.
2023-10-18T11:18:02.559300+08:00 19 [Note] [MY-011071] [Repl] Plugin group_replication reported: 'continue to process queue after suspended'
2023-10-18T11:18:02.559547+08:00 19 [Note] [MY-011071] [Repl] Plugin group_replication reported: 'before getting certification info in log_view_change_event_in_order'
2023-10-18T11:18:02.559606+08:00 19 [Note] [MY-011071] [Repl] Plugin group_replication reported: 'after setting certification info in log_view_change_event_in_order'
2023-10-18T11:18:03.150862+08:00 29 [Note] [MY-010559] [Repl] Multi-threaded slave statistics for channel 'group_replication_applier': seconds elapsed = 253; events assigned
= 1025; worker queues filled over overrun level = 0; waited due a Worker queue full = 0; waited due the total_size = 0; waited at clock conflicts = 387255700 waited (count) w
hen Workers occupied = 39 waited when Workers occupied = 183957900
```