

LOGFAS Replication Error Resolution and Tweak Guide

1. LOGFAS Mediation Service (LOGFASMS) errors

On the LOGFAS server running the LOGFASMS the following errors may be seen in the log file at default path:

```
"C:\Program Files (x86)\NATO\LOGFAS6\DATABASE\SERVER\data\pg_log"
```

Error:

```
4396_logfas_DB_IP_2016-05-22 15:34:24 CESTSTATEMENT:  SELECT
"_R_GUID", "_R_ClientVersion" FROM "repl_MOV_Track" WHERE
((( "_R_Timestamp" <= '2016-05-22 13:27:38.120' ))) ORDER BY
"_R_Timestamp"
```

To resolve this error edit the Slave server configuration file **LogfasReplicationService.exe.config** at default path:

```
"C:\Program Files (x86)\NATO\LOGFAS6\Replication"
```

Add the 2 lines highlighted below to exclude the MOV_Track table:

:

```
<add key="ServerMachine1" value="localhost" />
<add key="ServerDatabase1" value="logfas_localmaster" />
<add key="ServerPort1" value="15432" />
<add key="ServerCommandTimeout1" value="120" />
<add key="ClientMachine1" value="localhost" />
<add key="ClientDatabase1" value="logfas_localslave" />
<add key="ClientPort1" value="15432" />
<add key="ClientCommandTimeout1" value="120" />
<add key="NumberOfExclusions" value="1" />
<add key="ExcludedTable1" value="MOV_Track" />
```

Restart the **PostgreSQL** service to adopt the changes.

2. OUT OF SHARED MEMORY and SHARED BUFFERS errors

On the Master LOGFAS server the following errors may be seen in the log file at default path:

```
C:\Program Files (x86)\NATO\LOGFAS6\DATABASE\SERVER\data\pg_log
```

Error:

```

2504_logfas_DB_IP_2016-05-26 20:45:52 CESTWARNING:  out of shared
memory
2504_logfas_DB_IP_2016-05-26 20:45:52 CESTERROR:  out of shared
memory
2504_logfas_DB_IP_2016-05-26 20:45:52 CESTHINT:  You might need to
increase max_pred_locks_per_transaction.
2504_logfas_DB" WHERE ((("_R_Timestamp"<='2016-05-26
18:45:08.302')) ORDER BY "_R_Timestamp"
4756_logfas_DB_IP_2016-05-26 20:46:29 CESTWARNING:  out of shared
memory
4756_logfas_DB_IP_2016-05-26 20:46:29 CESTERROR:  out of shared
memory
4756_logfas_DB_IP_2016-05-26 20:46:29 CESTHINT:  You might need to
increase max_pred_locks_per_transaction.
4756_logfas_DB_IP_2016-05-26 20:46:29 CESTSTATEMENT:  SELECT
"_R_GUID", "_R_ClientVersion" FROM "repl_MOV_UserColumns" WHERE
((( "_R_Timestamp"<='2016-05-26 18:43:38.269')) ORDER BY
"_R_Timestamp"

```

To resolve this error edit the Master server postgresql.config configuration file at the default path:

```
C:\Program Files (x86)\NATO\LOGFAS6\DATABASE\SERVER\data
```

Edit the LOCK MANAGEMENT line called:

```
max_pred_locks_per_transaction,
```

This is by is disabled and =64. Remove the delimiter (#) at the front of the line and change to =128, as per the example:

```

# LOCK MANAGEMENT
#-----
#deadlock_timeout = 1s
#max_locks_per_transaction = 64 # min 10# (change requires restart)
# Note: Each lock table slot uses ~270 bytes of shared memory, and
there are
# max_locks_per_transaction * (max_connections +
max_prepared_transactions)
# lock table slots.
max_pred_locks_per_transaction = 128 # min 10
          # (change requires restart)

```

Within the same file edit **shared_buffers** to a new value of 1024MB, as per the example:
shared_buffers = 1024MB

Restart the PostgreSQL service to adopt the changes.

3. STATEMENT TIMOUT

On the SLAVE LOGFAS server, if you get the following type of error in the log file at the default path:

```
C:\Program Files (x86)\NATO\LOGFAS6\DATABASE\SERVER\data\pg_log
```

Error:

```
4396_logfas_DB_IP_2016-05-22 15:34:24 CESTERROR: cancelling statement due to statement timeout
```

To resolve this error edit the configuration on the Slave server configuration file **LogfasReplicationService.exe.config** at the default path:

```
C:\Program Files (x86)\NATO\LOGFAS6\Replication
```

As the following example shows:

```
<add key="ServerMachine1" value="localhost" />
<add key="ServerDatabase1" value="logfas_localmaster" />
<add key="ServerPort1" value="15432" />
<add key="ServerCommandTimeout1" value="120" />
<add key="ClientMachine1" value="localhost" />
<add key="ClientDatabase1" value="logfas_localslave" />
<add key="ClientPort1" value="15432" />
<add key="ClientCommandTimeout1" value="120" />
```

Change values which are marked red in example to 600 or 1200. Using CMD, ping other site with who you are replicating. If you get latency result 600-800ms, then modify timeout values to 600. If you get latency result 1200-1400, then modify timeout values to 1200.

Restart the **PostgreSQL service** to adopt the changes.

4. Replication Performance

Within the LogfasReplicationService.exe.config file (of the slave servers running the replication service), change the following parameters values to increase replication performance:

ReplicationFrequency value =	"0,1,0"	to	"0,5,0"
ForceFullReplicationFrequency value =	"1,0,0,0"	to	"100,0,0,0"
FullReplicationInterval value =	"0,0,0"	to	"24,0,0"