

Parameters	Description
log_destination	Specifies where the log output should be sent. It can be set to multiple values, including stderr, csvlog , syslog, and eventlog. Multiple destinations can be specified by separating them with commas. For example, setting log_destination = 'stderr, csvlog' will send log output to both a standard error and a CSV log file.
logging_collector	This enables the collection of logs into log files. This is necessary if log_destination is set to stderr.
log_directory	Specifies the directory where log files will be stored.
log_filename	Defines the naming pattern for log files.
log_rotation_age	Sets the maximum age of a log file before it is rotated.
log_rotation_size	Specifies the maximum size of a log file before it is rotated.
log_statement	Controls which SQL statements are logged. Possible values are none, ddl, mod, and all.
log_min_duration_statement	Logs statements that take longer than this amount of time (in milliseconds). Setting it to 0 logs all statements, while -1 disables it.
log_connections	Logs each successful connection to the server.
log_disconnections	Logs end of a session, including duration.
log_lock_waits	Logs whenever a session waits longer than deadlock_timeout to acquire a lock.
log_truncate_on_rotation	Determines whether log files should be truncated when they are rotated

Log Paramete:-

log_destination = 'stderr'
logging_collector = on

log_directory = 'log'

log_filename = 'postgresql-%a.log'

log_rotation_age = 1d

log_rotation_size = 0
log_truncate_on_rotation = on

log_destination = 'stderr'
logging_collector = on
log_directory = 'log'
log_filename = 'postgresql-%a.log'
log_rotation_age = 7d
log_line_prefix = ' [%m] %u@%h->%d:%a [%p] ' # special values:
log_connections = on
log_disconnections = on
log_duration = on
log_hostname = on

log_timezone =

timezone = Asia/Kolkata

For slow quries this parameter helpful:-

log_min_duration_statement = 5000:-

Setting log_min_duration_statement to 5000 means that PostgreSQL will log statements that take longer than 5000 milliseconds (5 seconds) to execute. This parameter is part of PostgreSQL's logging configuration and is useful for performance tuning and identifying slow queries.

log_statement:-

This parameter determines which SQL statements are logged.

none: Disables logging of all statements.

ddl: Logs only DDL statements (CREATE, ALTER, DROP, etc.).

mod: Logs DDL and DML statements (all data definition and manipulation statements).

all: Logs all statements, including both DDL and DML.

dml: Logs only DML statements (INSERT, UPDATE, DELETE, SELECT INTO).

log_lock_waits: If set to 'on', PostgreSQL logs the PID (Process ID) of the blocked process and the PID of the blocking process for each lock wait.

It's useful for diagnosing and resolving lock contention issues.

=====Basic log parameter enable=====

if you **did not explicitly enable any logging parameters**, PostgreSQL will **only capture the following** by default:

1. **Errors and Warnings** (queries that cause errors)
2. **Connections and Disconnections**

Since:

- log_min_duration_statement = -1 → **No queries are logged based on execution time.**
- log_statement is likely none → **Regular queries are NOT logged.**
- log_connections and log_disconnections are off by default → **No connection logs unless enabled.**

Captured Queries (By Default)

✓ **Queries that cause errors** (e.g., syntax errors, constraint violations)

✓ **Some system-level logs** (startup, shutdown, critical errors)

✗ **Normal SELECT, INSERT, UPDATE, DELETE queries will NOT be logged.**

If you want all queries to be logged, you need to modify log_statement and log_min_duration_statement.

PostgreSQL Logging Parameters

log_destination:

Value: 'stderr'

Description: Specifies the log output destination. 'stderr' writes logs to the standard error stream.

Main Purpose: Defines where logs are sent or written.

logging_collector:

Value: on

Description: Enables the collection of log entries into log files.

Main Purpose: Activates centralized logging into files for easier troubleshooting.

log_directory:

Value: '/var/log/edb/as<epas_version>'

Description: Directory where log files will be stored. <epas_version> should be replaced with the actual EDB Advanced Server version.

Main Purpose: Determines the folder path where PostgreSQL stores logs.

log_filename:

Value: 'postgresql-%a.log' or 'postgresql-%Y-%m-%d.log'

Description: Specifies the log file name format. %d represents the day of the month, so a new log file is created daily.

Main Purpose: Enables log rotation and better log management.

log_truncate_on_rotation:

Value: on

Description: When set to on, old log files are truncated rather than appended when a new log file with the same name is created.

Main Purpose: Prevents log file growth and ensures fresh log content daily.

log_line_prefix:

Value: %t [%p-%l]: user=%u,db=%d,app=%a,client=%h

Description: Sets the prefix format for each log line. It includes timestamp (%t), process ID (%p), log line number (%l), user, database, application, and client IP.

Main Purpose: Adds context and traceability to each log entry.

log_lock_waits:

Value: on

Description: Logs any session that waits longer than the deadlock timeout for a lock.

Main Purpose: Helps diagnose locking and concurrency issues.

log_min_duration_statement:

Value: 900,000 (15min)

Description: Logs statements that run longer than 900,000 milliseconds (15 min).

Main Purpose: Identifies long-running queries for performance tuning.

log_statement:

Value: 'ddl'

1.Specifies what SQL queries to log.**2.Options:**i.**none**: No queries are logged.ii.**ddl**: Logs schema changes (e.g., CREATE, ALTER,Drop).iii.**mod**: Logs data modifications (e.g., INSERT, UPDATE,DELETE, TRUNCATE+DDL).iv.**all**: Logs everything.

Description: Logs all Data Definition Language (DDL) statements like CREATE, ALTER, DROP.

Main Purpose: Tracks schema changes for auditing and troubleshooting.

Postgresql Parameter	Value	Description	Main Purpose
log_destination	'stderr'	Specifies the log output destination. 'stderr' writes logs to the standard error stream.	Defines where logs are sent or written.
logging_collector	on	Enables the collection of log entries into log files.	Activates centralized logging into files for easier troubleshooting.
log_directory	'/var/log/edb/as<epas_version>'	Directory where log files will be stored. <epas_version> should be replaced with the actual EDB Advanced Server version.	Determines the folder path where PostgreSQL stores logs.
log_filename	'postgresql-%a.log' or 'postgresql-%Y-%m-%d.log'	Specifies the log file name format. %d represents the day of the month, so a new log file is created daily.	Enables log rotation and better log management.
log_truncate_on_rotation	on	When set to on, old log files are truncated rather than appended when a new log file with the same name is created.	Prevents log file growth and ensures fresh log content daily.
log_line_prefix	%t [%p-%l]: user=%u,db=%d,app=%a,client=%h	Sets the prefix format for each log line. It includes timestamp (%t), process ID (%p), log line number (%l), user, database, application, and client IP.	Adds context and traceability to each log entry.
log_lock_waits	on	Logs any session that waits longer than the deadlock timeout for a lock.	Helps diagnose locking and concurrency issues.
log_min_duration_statement	900,000 (15min)	Logs statements that run longer than 900,000 milliseconds (15 min).	Identifies long-running queries for performance tuning.
log_statement	'ddl'	Logs all Data Definition Language (DDL) statements like CREATE, ALTER, DROP.	Tracks schema changes for auditing and troubleshooting.
statement_timeout	0 (disabled)	Cancels the running query	Stop runaway queries
lock_timeout	0 (disabled)	Cancels the query waiting for lock	Avoid long lock waits
idle_in_transaction_session_timeout	0 (disabled)	Terminates the session	Prevents open idle transactions (bloat, blocking)
idle_session_timeout	0 (disabled)	Terminates the session	Frees up unused connections

