External Database Connection to PostgreSQL

Introduction

Info: Since version 2016 GA, Polarion uses and supports only the PostgreSQL database server as its database engine. Usage of old H2 built-in database server is discontinued, and will not be supported anymore.

This section explains how to connect to the Polarion's PostgreSQL database from an external source. There are actually two databases in the architecture. The one called "polarion" contains only data of the HEAD revision of the Polarion repository. The other database called "polarion_history" contains historical data for all revisions (including the HEAD revision). The remote access URL for both these databases is described below.

The recommended way to connect to the Polarion's PostgreSQL database is via the read-only user "`external`", that is automatically configured by Polarion for external access.

Connecting to PostgreSQL database via remote tool

Polarion and database configuration

There are a few configuration steps that you need to take in order to enable external connection to Polarion's PostgreSQL database:

1. In `polarion.properties` file (see location in Notes below), set a property `com.polarion.platform.sql.externalUserPassword` to a password of your choice. The password may contain any characters, but not leading or trailing white spaces.
2. Restart the Polarion server. Polarion will automatically set up the user for external access in the PostgreSQL database.

- First check the status of postgre: systemctl status postgresql make sure that it should be enabled, if it is not enabled then enable it: systemclt enable postgresql

- Now restart PG: staystemctl restart postgresql

Additionally, to allow connection from outside the host machine, the database must be manually configured to allow external access. By default, the database is configured to listen for connections only on `localhost`.

Follow these steps to allow remote database access:

1. Reconfigure to what `listen_addresses` your PostgreSQL server is listening in the configuration file `%PGDATA%/postgresql.conf`.
   You can specify a comma-separated list of IP addresses, or use * to allow connection from all addresses.
   Example: `listen_addresses='*'` to listen to all addresses
2. Configure which hosts are allowed to connect, how clients are authenticated, which

PostgreSQL user names they can use, and which databases they can access in the configuration file `%PGDATA%/pg_hba.conf`

Example: `host all all 0.0.0.0/0 md5` to allow connection to all databases from any address

3. Restart the PostgreSQL database server

For more information about the configuration files, check the following PostgreSQL documentation:

Setting Parameters

Connections and Authentication

The pg_hba.conf File

Connection details

Use a client of your choice to connect to the database remotely using the following details:

Driver: Available from https://jdbc.postgresql.org/

URL: `jdbc:postgresql://<hostname>:<port>/<database>`

Port number can be determined from the Polarion system property `com.polarion.platform.internalPG` or from Polarion logs if you search for `com.polarion.platform.sql.internal.PgConnection`

Database names are `polarion`, or `polarion_history`

User Name: external

Password: The one you set in properties

Security Advisory

Once you have set up to allow external connection to the database, the external user gets blanket access to the entire database content and effectively to all Polarion data - all projects, the HEAD revision as well as history. There is no further access control. All Polarion user names will also be visible. Polarion user passwords will not be visible as those are not stored in a database or SVN.

The external user will always have read-only access to the database and is not allowed to modify any data.

Appendix

The `polarion.properties` file is located on the following paths depending on the environment:

Windows: `%POLARION_HOME%/polarion/configuration/polarion.properties`

Linux: `%POLARION_HOME%/etc/polarion.properties`

`%PGDATA%` is the folder where the database files are stored and the location on which the database was initialized.

The default location is: `%POLARION_HOME%/data/postgres-data`