

and subsequently executed locally. This reduces the network traffic that would otherwise request the entire table from the server for local processing.

### 16.8.2.1 Creating a FEDERATED Table Using CONNECTION

To use the first method, you must specify the `CONNECTION` string after the engine type in a `CREATE TABLE` statement. For example:

```
CREATE TABLE federated_table (
  id      INT(20) NOT NULL AUTO_INCREMENT,
  name    VARCHAR(32) NOT NULL DEFAULT '',
  other   INT(20) NOT NULL DEFAULT '0',
  PRIMARY KEY (id),
  INDEX name (name),
  INDEX other_key (other)
)
ENGINE=FEDERATED
DEFAULT CHARSET=utf8mb4
CONNECTION='mysql://fed_user@remote_host:9306/federated/test_table';
```



#### Note

`CONNECTION` replaces the `COMMENT` used in some previous versions of MySQL.

The `CONNECTION` string contains the information required to connect to the remote server containing the table in which the data physically resides. The connection string specifies the server name, login credentials, port number and database/table information. In the example, the remote table is on the server `remote_host`, using port 9306. The name and port number should match the host name (or IP address) and port number of the remote MySQL server instance you want to use as your remote table.

The format of the connection string is as follows:

```
scheme://user_name[:password]@host_name[:port_num]/db_name/tbl_name
```

Where:

- *scheme*: A recognized connection protocol. Only `mysql` is supported as the *scheme* value at this point.
- *user\_name*: The user name for the connection. This user must have been created on the remote server, and must have suitable privileges to perform the required actions (`SELECT`, `INSERT`, `UPDATE`, and so forth) on the remote table.
- *password*: (Optional) The corresponding password for *user\_name*.
- *host\_name*: The host name or IP address of the remote server.
- *port\_num*: (Optional) The port number for the remote server. The default is 3306.
- *db\_name*: The name of the database holding the remote table.
- *tbl\_name*: The name of the remote table. The name of the local and the remote table do not have to match.

Sample connection strings:

```
CONNECTION='mysql://username:password@hostname:port/database/tablename'
CONNECTION='mysql://username@hostname/database/tablename'
CONNECTION='mysql://username:password@hostname/database/tablename'
```