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## Master Data DB Structure

### The table LANGUAGE

Might probably better be named "Locale", but people are easier understanding a "Language".

```
CREATE TABLE LANGUAGE (  
  ID BIGINT NOT NULL,  
  LOCALE VARCHAR(5) NOT NULL,  
  COUNTRY VARCHAR(5) NOT NULL,  
  VARIANT VARCHAR(10),  
  JAVAIDENTIFIER VARCHAR(25) NOT NULL,  
  USERIDENTIFIER VARCHAR(40) NOT NULL,  
  UPDATETIME TIMESTAMP NOT NULL,  
  CONSTRAINT PKID  
    PRIMARY KEY (ID),  
  CONSTRAINT UNJAVAIDENTIFIER  
    UNIQUE (JAVAIDENTIFIER)  
);
```

### The table FLEET

Representing a single fleet.

```
CREATE TABLE FLEET (  

```

```

ID BIGINT NOT NULL,
NAME VARCHAR(40) NOT NULL,
DISPLAYNAME VARCHAR(100) NOT NULL,
LANGUAGEID BIGINT NOT NULL,
STREET VARCHAR(60) NOT NULL,
ZIP VARCHAR(10) NOT NULL,
CITY VARCHAR(60) NOT NULL,
COUNTRY VARCHAR(40) NOT NULL,
TIMEZONE VARCHAR(40) NOT NULL,
CONTRACTNUMBER VARCHAR(30),
CUSTOMERNUMBER VARCHAR(30),
CONTRACTFROM TIMESTAMP,
CONTRACTUNTIL TIMESTAMP,
UPDATETIME TIMESTAMP NOT NULL,
CONSTRAINT PKID
    PRIMARY KEY (ID),
CONSTRAINT FKLANGUAGEID
    FOREIGN KEY (LANGUAGEID)
    REFERENCES LANGUAGE (ID),
CONSTRAINT UNNAME
    UNIQUE (NAME)
);

```

## The table SIMCARD

Tracks the simcards associated to a fleet. Needed for message tracking in protocol 2.26.

```

CREATE TABLE SIMCARD (
    MSISDN MSISDN NOT NULL,
    FLEETID BIGINT NOT NULL,
    CONSTRAINT PKMSISDNFLEETID
        PRIMARY KEY (MSISDN, FLEETID),
    CONSTRAINT FKFLEETID
        FOREIGN KEY (FLEETID)
        REFERENCES FLEET (ID)
        ON DELETE CASCADE
);

```

## The table TRAILER

```

CREATE TABLE TRAILER (
    ID BIGINT NOT NULL,
    TOKEN VARCHAR(20) NOT NULL,
    NAME VARCHAR(30) NOT NULL,
    FLEETID BIGINT NOT NULL,
    CONSTRAINT PKID
        PRIMARY KEY (ID),
    CONSTRAINT UNFLEETIDTOKEN
        UNIQUE (FLEETID, TOKEN),
    CONSTRAINT FKFLEETID
        FOREIGN KEY (FLEETID)
        REFERENCES FLEET (ID)
        ON DELETE CASCADE
);

```

## The table VEHICLE

Describes a vehicle. Combines the old tables vehicle, uncompletevehicle, fleetvehicle.

```
CREATE TABLE VEHICLE (  
  ID BIGINT NOT NULL,  
  NAME VARCHAR(254) NOT NULL,  
  MODEL VARCHAR(254) NOT NULL,  
  CHASSIS VARCHAR(40) NOT NULL,  
  REGISTRATION TIMESTAMP,  
  REGISTRATIONNUMBER VARCHAR(12),  
  FLEETID BIGINT NOT NULL,  
  STATUS INTEGER NOT NULL,  
  ORIGINATOR VARCHAR(254),  
  GARAGE VARCHAR(254),  
  HARDWARE INTEGER NOT NULL,  
  MSISDN MSISDNT,  
  START TIMESTAMP NOT NULL,  
  END TIMESTAMP,  
  PROTOCOLVERSION SMALLINT NOT NULL,  
  UPDATETIME TIMESTAMP NOT NULL,  
  CONSTRAINT PKID  
    PRIMARY KEY (ID),  
  CONSTRAINT FKFLEETID  
    FOREIGN KEY (FLEETID)  
    REFERENCES FLEET (ID)  
);
```

## The table VEHICLEGROUP

Defines a vehicle group. Vehicle groups are fleet-specific.

```
CREATE TABLE VEHICLEGROUP (  
  ID BIGINT NOT NULL,  
  NAME VARCHAR(254) NOT NULL,  
  TYPE INTEGER NOT NULL,  
  FLEETID BIGINT NOT NULL,  
  DESCRIPTION VARCHAR(254),  
  UPDATETIME TIMESTAMP NOT NULL,  
  CONSTRAINT PKID  
    PRIMARY KEY (ID),  
  CONSTRAINT FKFLEETID  
    FOREIGN KEY (FLEETID)  
    REFERENCES FLEET (ID)  
  ON DELETE CASCADE  
);
```

## The table VEHICLE2VEHICLEGROUP

Maps vehicles to vehiclegroups (n:m).

```

CREATE TABLE VEHICLE2VEHICLEGROUP (
  GROUPID BIGINT NOT NULL,
  VEHICLEID BIGINT NOT NULL,
  START_TIMESTAMP NOT NULL,
  END_TIMESTAMP,
  UPDATETIME TIMESTAMP NOT NULL,
  CONSTRAINT PKGROUPIDVEHICLEID
    PRIMARY KEY (GROUPID,VEHICLEID),
  CONSTRAINT FKGROUPID
    FOREIGN KEY (GROUPID)
      REFERENCES VEHICLEGROUP (ID)
    ON DELETE CASCADE,
  CONSTRAINT FKVEHICLEID
    FOREIGN KEY (VEHICLEID)
      REFERENCES VEHICLE (ID)
    ON DELETE CASCADE
);

```

## The table RIGHT

Holds all those nice user rights we have in the system.

```

CREATE TABLE RIGHT (
  NAME VARCHAR(40) NOT NULL,
  SERVICE INTEGER NOT NULL,
  UPDATETIME TIMESTAMP NOT NULL,
  CONSTRAINT PKNAME
    PRIMARY KEY (NAME)
);

```

## The table PROFILE

Profiles associate certain rights to a user, as listed in "Profile/Rights". Applications must not use the profiles directly (unless for the purpose of administration). They should always use `User.getRight(rightName)` or something similar. Note, that there are certain predefined rights with the name of system profiles, for the sake of consistency. For example, the right "CustomerAdmin" is shared by the profiles "CustomerAdmin", "DCAdmin" and "SuperAdmin".

```

CREATE TABLE PROFILE (
  ID BIGINT NOT NULL,
  FLEETID BIGINT NOT NULL,
  NAME VARCHAR(40) NOT NULL,
  DESCRIPTION VARCHAR(254) NOT NULL,
  UPDATETIME TIMESTAMP NOT NULL,
  CONSTRAINT PKID
    PRIMARY KEY (ID),
  CONSTRAINT FKFLEETID
    FOREIGN KEY (FLEETID)
      REFERENCES FLEET (ID)
);

```

## The table PROFILE2VEHICLEGROUP

Maps profiles to vehiclegroups. If a profile is mapped to one or more vehicle groups, its rights are applicable only for the vehicles belonging to those specific groups (within the fleet). If there are no vehicle groups associated with a profile, its rights are applied for all vehicles in the fleet.

```
CREATE TABLE PROFILE2VEHICLEGROUP (  
  PROFILEID BIGINT NOT NULL,  
  GROUPID BIGINT NOT NULL,  
  UPDATETIME TIMESTAMP NOT NULL,  
  CONSTRAINT PKPROFILEIDGROUPID  
    PRIMARY KEY (PROFILEID, GROUPID),  
  CONSTRAINT FKPROFILEID  
    FOREIGN KEY (PROFILEID)  
    REFERENCES PROFILE (ID)  
    ON DELETE CASCADE,  
  CONSTRAINT FKGROUPID  
    FOREIGN KEY (GROUPID)  
    REFERENCES VEHICLEGROUP (ID)  
    ON DELETE CASCADE  
);
```

## The table RIGHT2FLEET

Maps rights to fleets.

```
CREATE TABLE RIGHT2FLEET (  
  NAME VARCHAR(40) NOT NULL,  
  FLEETID BIGINT NOT NULL,  
  UPDATETIME TIMESTAMP NOT NULL,  
  CONSTRAINT PKNAMEFLEETID  
    PRIMARY KEY (NAME, FLEETID),  
  CONSTRAINT FKNAME  
    FOREIGN KEY (NAME)  
    REFERENCES RIGHT (NAME)  
    ON DELETE CASCADE,  
  CONSTRAINT FKFLEETID  
    FOREIGN KEY (FLEETID)  
    REFERENCES FLEET (ID)  
    ON DELETE CASCADE  
);
```

## The table RIGHT2PROFILE

Assigns rights to profiles.

```
CREATE TABLE RIGHT2PROFILE (  
  NAME VARCHAR(40) NOT NULL,  
  FLEETID BIGINT NOT NULL,
```

```

PROFILEID BIGINT NOT NULL,
UPDATETIME TIMESTAMP NOT NULL,
CONSTRAINT PKNAMEFLEETIDPID
  PRIMARY KEY (NAME, FLEETID, PROFILEID),
CONSTRAINT FKNAMEFLEETID
  FOREIGN KEY (NAME, FLEETID)
  REFERENCES RIGHT2FLEET (NAME, FLEETID)
  ON DELETE CASCADE,
CONSTRAINT FKPROFILEID
  FOREIGN KEY (PROFILEID)
  REFERENCES PROFILE (ID)
  ON DELETE CASCADE
);

```

## The table USER

A system user.

```

CREATE TABLE USER (
  ID BIGINT NOT NULL,
  FIRSTNAME VARCHAR(64) NOT NULL,
  LASTNAME VARCHAR(64) NOT NULL,
  LOGIN VARCHAR(40) NOT NULL,
  PASSWORD VARCHAR(40) NOT NULL,
  EMAIL VARCHAR(64),
  MSISDN MSISDN,
  FLEETID BIGINT,
  PROFILEID BIGINT,
  LANGUAGEID BIGINT NOT NULL,
  TIMEZONE VARCHAR(40) NOT NULL,
  STATUS INTEGER NOT NULL,
  ENDDATE TIMESTAMP,
  UPDATETIME TIMESTAMP NOT NULL,
  CONSTRAINT PKID
    PRIMARY KEY (ID),
  CONSTRAINT FKFLEETID
    FOREIGN KEY (FLEETID)
    REFERENCES FLEET (ID)
    ON DELETE CASCADE,
  CONSTRAINT FKLANGUAGEID
    FOREIGN KEY (LANGUAGEID)
    REFERENCES LANGUAGE (ID),
  CONSTRAINT FKPROFILEID
    FOREIGN KEY (PROFILEID)
    REFERENCES PROFILE (ID),
  CONSTRAINT UNFLEETIDLOGIN
    UNIQUE(FLEETID, LOGIN)
);

```

## The table DRIVER

A driver that is identified by its token.

```

CREATE TABLE DRIVER (
  ID BIGINT NOT NULL,

```

```

FIRSTNAME VARCHAR(64) NOT NULL,
LASTNAME VARCHAR(64) NOT NULL,
EMAIL VARCHAR(64),
MSISDN MSISDN,
FLEETID BIGINT NOT NULL,
TOKEN INTEGER NOT NULL,
TOKENTYPE SMALLINT NOT NULL,
ENDDATE TIMESTAMP,
UPDATETIME TIMESTAMP NOT NULL,
CONSTRAINT PKID
    PRIMARY KEY (ID),
CONSTRAINT FKFLEETID
    FOREIGN KEY (FLEETID)
    REFERENCES FLEET (ID)
    ON DELETE CASCADE
);

```

## The table FBSESSION

FleetBoard's representation of a HTTP session.

```

CREATE TABLE FBSESSION (
    ID BIGINT NOT NULL,
    ENCODEDID VARCHAR(40) NOT NULL,
    FLEETID BIGINT NOT NULL,
    USERID BIGINT NOT NULL,
    LANGUAGEID BIGINT NOT NULL,
    TIMEZONE VARCHAR(40) NOT NULL,
    LOGINTIMEUTC TIMESTAMP NOT NULL,
    LASTACTIONUTC TIMESTAMP NOT NULL,
    EXPIRETIME SMALLINT NOT NULL,
    CONSTRAINT PKID
        PRIMARY KEY (ID),
    CONSTRAINT FKFLEETID
        FOREIGN KEY (FLEETID)
        REFERENCES Fleet (ID)
        ON DELETE CASCADE,
    CONSTRAINT FKUSERID
        FOREIGN KEY (USERID)
        REFERENCES User (ID)
        ON DELETE CASCADE,
    CONSTRAINT FKLANGUAGEID
        FOREIGN KEY (LANGUAGEID)
        REFERENCES LANGUAGE (ID),
    CONSTRAINT FKENCODEDID
        UNIQUE (ENCODEDID)
);

```

## Tables Related to Vehicle Configuration Settings

### The table KOMPORT

Holds komports (protocol 3.1) and logical servers (protocol 2.26). The corresponding device IDs on the communication server are stored as well.

```

CREATE TABLE KOMPORT (
  ID BIGINT NOT NULL,
  NAME VARCHAR(30) NOT NULL,
  VERSION SMALLINT NOT NULL,
  DESCRIPTION VARCHAR(254),
  SENDERMSISDN MSISDNT NOT NULL,
  SENDERMSISDN TYPE SMALLINT NOT NULL,
  RECEIVERMSISDN MSISDNT NOT NULL,
  RECEIVERMSISDN TYPE SMALLINT NOT NULL,
  SMCMSISDN MSISDNT,
  UPDATETIME TIMESTAMP NOT NULL,
  CONSTRAINT PKID
    PRIMARY KEY (ID),
  CONSTRAINT UNNAME
    UNIQUE (NAME)
);

```

## The table SERVERCONFIGURATION

```

CREATE TABLE SERVERCONFIGURATION (
  ID BIGINT NOT NULL,
  NAME VARCHAR(30) NOT NULL,
  VERSION SMALLINT NOT NULL,
  STATUS SMALLINT NOT NULL,
  KOMPORTID1 BIGINT NOT NULL,
  PORTFUNCTION1 SMALLINT NOT NULL,
  KOMPORTID2 BIGINT,
  PORTFUNCTION2 SMALLINT,
  KOMPORTID3 BIGINT,
  PORTFUNCTION3 SMALLINT,
  KOMPORTID4 BIGINT,
  PORTFUNCTION4 SMALLINT,
  KOMPORTID5 BIGINT,
  PORTFUNCTION5 SMALLINT,
  KOMPORTID6 BIGINT,
  PORTFUNCTION6 SMALLINT,
  KOMPORTID7 BIGINT,
  PORTFUNCTION7 SMALLINT,
  KOMPORTID8 BIGINT,
  PORTFUNCTION8 SMALLINT,
  KOMPORTID9 BIGINT,
  PORTFUNCTION9 SMALLINT,
  KOMPORTID10 BIGINT,
  PORTFUNCTION10 SMALLINT,
  KOMPORTID11 BIGINT,
  PORTFUNCTION11 SMALLINT,
  KOMPORTID12 BIGINT,
  PORTFUNCTION12 SMALLINT,
  KOMPORTID13 BIGINT,
  PORTFUNCTION13 SMALLINT,
  KOMPORTID14 BIGINT,
  PORTFUNCTION14 SMALLINT,
  KOMPORTID15 BIGINT,
  PORTFUNCTION15 SMALLINT,
  KOMPORTID16 BIGINT,
  PORTFUNCTION16 SMALLINT,
  UPDATETIME TIMESTAMP NOT NULL,
  CONSTRAINT PKID
    PRIMARY KEY (ID),
  CONSTRAINT UNNAME

```



```

    UNIQUE (NAME),
    CONSTRAINT FKKOMPORTID1
      FOREIGN KEY (KOMPORTID1)
      REFERENCES KOMPORT (ID)
      ON DELETE RESTRICT,
    CONSTRAINT FKKOMPORTID2
      FOREIGN KEY (KOMPORTID2)
      REFERENCES KOMPORT (ID)
      ON DELETE RESTRICT,
    CONSTRAINT FKKOMPORTID3
      FOREIGN KEY (KOMPORTID3)
      REFERENCES KOMPORT (ID)
      ON DELETE RESTRICT,
    CONSTRAINT FKKOMPORTID4
      FOREIGN KEY (KOMPORTID4)
      REFERENCES KOMPORT (ID)
      ON DELETE RESTRICT,
    CONSTRAINT FKKOMPORTID5
      FOREIGN KEY (KOMPORTID5)
      REFERENCES KOMPORT (ID)
      ON DELETE RESTRICT,
    CONSTRAINT FKKOMPORTID6
      FOREIGN KEY (KOMPORTID6)
      REFERENCES KOMPORT (ID)
      ON DELETE RESTRICT,
    CONSTRAINT FKKOMPORTID7
      FOREIGN KEY (KOMPORTID7)
      REFERENCES KOMPORT (ID)
      ON DELETE RESTRICT,
    CONSTRAINT FKKOMPORTID8
      FOREIGN KEY (KOMPORTID8)
      REFERENCES KOMPORT (ID)
      ON DELETE RESTRICT,
    CONSTRAINT FKKOMPORTID9
      FOREIGN KEY (KOMPORTID9)
      REFERENCES KOMPORT (ID)
      ON DELETE RESTRICT,
    CONSTRAINT FKKOMPORTID10
      FOREIGN KEY (KOMPORTID10)
      REFERENCES KOMPORT (ID)
      ON DELETE RESTRICT,
    CONSTRAINT FKKOMPORTID11
      FOREIGN KEY (KOMPORTID11)
      REFERENCES KOMPORT (ID)
      ON DELETE RESTRICT,
    CONSTRAINT FKKOMPORTID12
      FOREIGN KEY (KOMPORTID12)
      REFERENCES KOMPORT (ID)
      ON DELETE RESTRICT,
    CONSTRAINT FKKOMPORTID13
      FOREIGN KEY (KOMPORTID13)
      REFERENCES KOMPORT (ID)
      ON DELETE RESTRICT,
    CONSTRAINT FKKOMPORTID14
      FOREIGN KEY (KOMPORTID14)
      REFERENCES KOMPORT (ID)
      ON DELETE RESTRICT,
    CONSTRAINT FKKOMPORTID15
      FOREIGN KEY (KOMPORTID15)
      REFERENCES KOMPORT (ID)
      ON DELETE RESTRICT,
    CONSTRAINT FKKOMPORTID16
      FOREIGN KEY (KOMPORTID16)
      REFERENCES KOMPORT (ID)
      ON DELETE RESTRICT
  );

```

