```
/*
 * COPPE / UFRJ - Universidade Federal do Rio de Janeiro
 * PESC - Programa de Engenharia de Sistemas e Computacao
 *
 * Disciplina: CPS730 - Internet das Coisas
 * Professor: Claudio Miceli
 *
 * Trabalho Final - Emergency Sound Detection
 * Data: 15/AGO/2022
 *
 * Nome: Luiz Marcio Faria de Aquino Viana, M.Sc.
 * Formacao: Engenheiro Eletricista com Enfase em Engenharia de Sistemas e Computação
 * DRE: 120048833
 * CPF: 024.723.347-10
 * RG: 08855128-8 IFP-RJ
 * Registro: 2000103581 CREA-RJ
 * E-mail: luiz.marcio.viana@gmail.com
 *        lmarcio@cos.ufrj.br
 * Tel.: +55-21-99983-7207
 *
 * 001-EmergencySound_MessageRequestManual.txt
 */
```

1. REQUEST IDENTIFYER GENERATOR

<RequestId>YYYYMMDD_HHmmss_999999</RequestId>

YYYY - request date time year
MM - request date time month
DD - request date time day of month

HH - request date time hour
mm - request date time minute
ss - request date time seconds

999999 - six digits random number

2. REMOTE UNIT IDENTIFYER GENERATOR

<RemoteUnitId>999999</RemoteUnitId>

999999 - six digits random number created at installation

3. PASSWORD CODE / DECODE METHOD

[APPKEY][PASSWRD]   ;; concat static application key number with the user password
                                     ;; then generate MD5 hash code

4. UUID GENERATOR

[SESSION_UUID]   ;; 35 characters length UUID number generator
[FILE_UUID]
[MODEL_UUID]

5. LIST OF MESSAGES

5.1. REQUEST MESSAGES

REQMSG_LOGIN	1001	;; login request message
REQMSG_MODELUPDATE	1011	;; model update request message
REQMSG_SENDDATA	1021	;; send data request message
REQMSG_WHATCHDOG	1099	;; whatchdog packet request message

5.2. RESPONSE MESSAGES

RESPMSG_LOGIN	9001	;; login response message
RESPMSG_MODELUPDATE	9011	;; model update response message
RESPMSG_SENDDATA	9021	;; send data response message
RESPMSG_WHATCHDOG	9099	;; whatchdog packet response message

6. LIST OF STATUS CODES

000 - Success
:
101 - Invalid username or password
102 - Invalid session UUID

4. MESSAGES

4.1. LOGIN MESSAGE

```
<Request>
        <RequestId>20220815_134255_012345</RequestId>
        <Command>REQMSG_LOGIN</Command>
        <Params>
                <RemoteUnitId>0123456</RemoteUnitId>
                <Username>lmarcio</Username>
                <Password>!@#$%^&*()</Password>
        </Params>
</Request>

<Response>
        <ResponseId>20220815_134255_012345</ResponseId>
        <Response>RESPMSG_LOGIN</Response>
        <Status>
                <StatusCode>000</StatusCode>
                <StatusMessage>Success</StatusMessage>
        </Status>
        <ResponseData>
                <SessionUUID>12345678901234567890123456789012345</SessionUUID>
        </ResponseData>
</Response>
```

4.2. MODEL UPDATE MESSAGE

```
<Request>
        <RequestId>20220815_134255_012345</RequestId>
        <Command>REQMSG_MODELUPDATE</Command>
        <Params>
                <SessionUUID>12345678901234567890123456789012345</SessionUUID>
        </Params>
</Request>

<Response>
        <ResponseId>20220815_134255_012345</ResponseId>
        <Response>RESPMSG_SENDDATA</Response>
        <Status>
                <StatusCode>000</StatusCode>
                <StatusMessage>Success</StatusMessage>
        </Status>
        <ResponseData>
                <SessionUUID>12345678901234567890123456789012345</SessionUUID>
                <ModelUUID>12345678901234567890123456789012345</ModelUUID>
                <ModelDateTime>20220815_134255_012345</ModelDateTime>
                <ModelDataBase64>[MODELDATA_BASE64]</ModelDataBase64>
        </ResponseData>
</Response>
```

4.3. SEND DATA MESSAGE

```
<Request>
        <RequestId>20220815_134255_012345</RequestId>
        <Command>REQMSG_SENDDATA</Command>
        <Params>
                <SessionUUID>12345678901234567890123456789012345</SessionUUID>
                <FileName>[FILENAME]</FileName>
                <FileSize>[FILESIZE]</FileSize>
                <FileDataBase64>[FILEDATA_BASE64]</FileDataBase64>
        </Params>
</Request>

<Response>
```

```
        <ResponseId>20220815_134255_012345</ResponseId>
        <Response>RESPMSG_SENDDATA</Response>
        <Status>
                <StatusCode>000</StatusCode>
                <StatusMessage>Success</StatusMessage>
        </Status>
        <ResponseData>
                <SessionUUID>12345678901234567890123456789012345</SessionUUID>
                <FileUUID>12345678901234567890123456789012345</FileUUID>
        </ResponseData>
</Response>
```

4.4. WHATCHDOG MESSAGE

```
<Request>
        <RequestId>20220815_134255_012345</RequestId>
        <Command>REQMSG_WHATCHDOG</Command>
        <Params>
                <SessionUUID>12345678901234567890123456789012345</SessionUUID>
        </Params>
</Request>

<Response>
        <ResponseId>20220815_134255_012345</ResponseId>
        <Response>RESPMSG_SENDDATA</Response>
        <Status>
                <StatusCode>000</StatusCode>
                <StatusMessage>Success</StatusMessage>
        </Status>
        <ResponseData>
                <SessionUUID>12345678901234567890123456789012345</SessionUUID>
                <SessionDateTime>20220815_134255_012345</SessionDateTime>
                <SessionTimeMili>0123456789</SessionTimeMili>
        </ResponseData>
</Response>
```