

### **Paging Request Type 1 (Zapocatie pagingu, nastavenie parametrov)**

#### Channel Needed

Channel #1 = (0) Any Channel

Channel #2 = (0) Any Channel

#### Page Mode

Page Mode = (0) Normal Paging

#### Mobile Identity

Mobile Identity Length = 5

Odd/Even Indic = (0) Even number of Digits

Type of Identity = (4) TMSI/P-TMSI (**Typ identifikacie je Temporary subscriber identity, teda iba dočasna identifikacia**)

Mobile Identity = 929379312

### **Channel Request**

Establishment Cause = Answer to Paging (**Indikuje dovod pre poziadavok zapocatia spojenia**)

Random Reference = 14 (**Location Updating**)

### **Immediate Assignment (Pridelenie zdrojov)**

#### Channel Description

Channel Type and TDMA offset = (1) SDCCH/8 + SACCH/C8 or CBCH (SDCCH/8)

Sub Channel = 3

Timeslot Number = 0

Training Sequence Code = 5

Hopping Channel = (1) RF Hopping Channel (**Bude sa vykonavat Frequency hopping**)

MAIO = 12 (**Nastavenie Mobile Allocation index offset, pri frequency hopping. Kazdy hop je separovany prave hodnotou nastavenou v MAIO**)

HSN = 53 (**Hopping sequence number**)

#### Request Reference

Random Access Information

Establishment Cause = Answer to Paging (**Odpoved na Paging, ziadal o pridelenie zdrojov**)

Random Reference = 14

T1 = 27

T3 = 28

T2 = 21

Reduced Frame Number = 36187

#### Timing Advance

Timing advance value = 15 (**Cas za ktory signal dorazi do BS z MS**)

#### Mobile Allocation

Length Mobile Allocation = 3

MA C #1 = 1 (**Pre kazdy z nasledujucich kanalov je dany priznak, ci sa pouzije alebo nie. Pouziju sa teda vsetky okrem #6**)

MA C #2 = 1

MA C #3 = 1

MA C #4 = 1

MA C #5 = 1

MA C #6 = 0

MA C #7 = 1

MA C #8 = 1

MA C #9 = 1

MA C #10 = 1

MA C #11 = 1

MA C #12 = 1

### **Paging Response (Zdroje su pridelené, moze nastat zaciato autenticacie a sifrovania)**

#### Ciphering Key Sequence Number

Key Sequence = (0) Possible values for the ciphering key

#### Mobile Station Classmark 2

Mobile Station Length = 3

Revision Level = (2) Used by mobile stations supporting R99 or later versions of the protocol

ES Ind = (1) Controlled Early Classmark Sending" Option Is Implemented In The MS

A5/1 = (1) Encryption Algorithm A5/1 is available (**Vyber sifrovacieho algoritmu A5**)

RF Power Capability = (3) Class 4

PS Capability = (0) PS Capability Not Present

SS Screen Indicator = 1

SM capability = (1) Mobile Station Supports Mobile Terminated Point To Point SMS

VBS = (0) No VBS Capability Or No Notifications Wanted

VGCS = (0) No VGCS Capability Or No Notifications Wanted  
FC Frequency Capability = (1) The Ms Does Support The E-GSM or R-GSM  
CM3 = (1) The Ms Supports Options That Are Indicated In Classmark 3 IE  
LCS VA capability = (1) LCS Value Added Location Request Notification Capability Supported  
UCS2 = 0  
SoLSA = (0) The ME does not support SoLSA.  
CM Service Prompt = (0) Network initiated mo cm connection request not supported.  
A5/3 = (0) encryption algorithm A5/3 not available **(A5/3 sifrovaci algoritmus nie je dostupny)**  
A5/2 = (1) encryption algorithm A5/2 available **(A5/2 sifrovaci algoritmus je dostupny)**

**Mobile Identity (Opat docasna identifikacia)**

Mobile Identity Length = 5  
Odd/Even Indic = (0) Even number of Digits  
Type of Identity = (4) TMSI/P-TMSI  
Mobile Identity = 929379312

**Authentication Request (Poziadavok pre autentizaciu)**

Ciphering Key Sequence Number

Key Sequence = (0) Possible values for the ciphering key

Authentication Parameter RAND **(Nahodne vygenerovane cislo pre autentizaciu)**

789E7AC87AC59E168987CD827EF14EE2

**Authentication Response**

Authentication Parameter SRES **(Toto cislo udava odpoved na autentizaciu od MS)**

AC236497A4

**Ciphering Mode Command (Zaciatok sifrovania)**

Cipher Response

CR Cipher Response = (0) IMEISV Shall Not Be Included **(International mobile station equipment)**

**Software version nebude zahrnuta v sifrovani)**

Cipher Mode Setting

Algorithm Identifier = (0) Cipher With Algorithm A5/1

SC = (1) Start Ciphering **(Flag pre zaciatok sifrovania, algoritmus A5/1 z predchadzajuceho riadku)**

**Ciphering Mode Complete (Sifrovanie hotove)**

**Setup (Preposiela sa na mobil, signalizacia)**

Bearer Capability **(Nastavenia kanala)**

Length of the bearer capability = 1  
Radio Channel Requirement = (1) Full Rate Support only MS  
Coding Standard = (0) GSM Standardized Coding  
Transfer mode = (0) Circuit Mode  
Information transfer capability = (0) Speech **(Reč)**

Calling Party BCD Number **(Cislo volajučeho)**

Length of BCD number contents = 8  
Type of Number = (1) International Number  
Numbering Plan Identification = (1) ISDN/Telephony numbering  
Ext = 1  
Presentation Indicator = (0) Presentation Allowed  
Screening Indicator = (3) Network Provided  
BCD Number = 420773733844 **(Cislo s prefixom – predvolba CR)**

**Call Confirmed (Odpoved na Setup spravu)**

Bearer Capability 1

Length of the Bearer Capability = 3  
Radio Channel Requirement = (1) Full Rate Support only MS  
Coding Standard = (0) GSM standardized coding  
Transfer Mode = (0) Circuit mode  
Information Transfer Capability = (0) Speech  
Coding = (0) Octet used for extension of information transfer capability  
CTM = (0) CTM Text Telephony is Not Supported  
Speech version indication = (2) GSM Full Rate Speech Version 2  
Coding = (0) Octet used for extension of information transfer capability  
Speech version indication = (0) GSM Full Rate Speech Version 1

CC Capabilities

Length of Call Control Capabilities = 2  
Maximum Number of Supported Bearers = 0

PCP = 0  
DTMF = 1  
Maximum Number of Speech Bearers = 1

**Assignment Command (Pridelenie hlasoveho kanalu)**

Channel Description First Channel  
Channel Type and TDMA offset = (1) TCH/F + FACCH/F and SACCH/F  
Timeslot Number = 3  
Training Sequence Code = 5  
Hopping Channel = (1) RF Hopping Channel  
MAIO = 12  
HSN = 53

Power Command  
Power Level = 10

Cell Channel Description  
Format Bit Map  
CA ARFCN = 36 37 38 39 40 44 49 61 62 63 64 65

Mode of the First  
Mode = (33) Speech Full Rate Or Half Rate Version 2

Mobile Allocation  
Length Mobile Allocation = 3 (**Opat to co predtym, vyuzivaju sa vsetky kanaly okrem 6**)  
MA C #1 = 1  
MA C #2 = 1  
MA C #3 = 1  
MA C #4 = 1  
MA C #5 = 1  
MA C #6 = 0  
MA C #7 = 1  
MA C #8 = 1  
MA C #9 = 1  
MA C #10 = 1  
MA C #11 = 1  
MA C #12 = 1

**Assignment Complete (Pridelenie kanalu ukoncene, moze zacat vyzvanat)**

RR Cause = (0) Normal Event

**Alerting (Vyzvananie)**

**Connect (Vsetky predchadzajuce kroky dopadli uspesne, posielanie signalizacnej spravy Connect, hovor je zostaveny)**

Protocol Discriminator = Call Control; call related SS message  
Transaction Identifier  
TI flag = The message is sent from the side that originates the TI  
TI Value = TI value 3  
CC Message Type = 10000111 (**Znaci typ spravy Connect**)

**Connect Acknowledge (Odpoved na spravu Connect, hovor moze zacat)**

---- Po niekoľika minútách ---- (**Hlasova komunikacia**)

**Disconnect (Odpojenie hovoru)**

Cause  
Length Cause = 2  
Ext = 1  
Coding Standard = (3) Interworking Unspecified  
Location = (0) User  
Ext = 1  
Cause Value  
Class = (1) Normal Event  
Value = (0) Normal Call Clearing

**Release (Uvolnenie prostriedkov)**

**Release Complete (Uvolnenie prostriedkov uspesne)**

**Channel Release (Uvolnenie kanalu)**

RR Cause = (0) Normal Event

Prichadzajuci hovor v GSM. Prijemca je mobil. Komunikacia medzi mobile switching center (MSC) a mobilnou stanicou (MS). Paging, autentizacia, sifrovanie, zostavenie hovoru (Setup), a po niekoľkých minútach ukoncenie hovoru a uvolnenie prostriedkov.