

Communication Networks 2



Gusztáv Adamis
BME TMIT



Numbering (addressing)

- Called party's number: identified originally the location (address)
- Now tendency: identifies the subscriber itself (name)
 - mobile networks - obviously
 - examples in fixed networks:
 - number portability
 - premium rate, freephone (green), shared cost (blue) numbers
- E.164 Recommendation (ITU-T, <http://www.itu.int/rec/T-REC-E.164/en>)
- An international number: max. 15 digits
 - country code (1-3 digits) + national destination code (area code, service or network identifier) + subscriber number

1	North America
2	Africa (+Greenland)
3,4	Europe
5	Middle and south America
6	Australia Oceania
7	Russia, Kazakhstan
8	Far East (+Inmarsat, Internat. green number: 800)
9	Middle and Near East

Numbering (addressing)

- National Destination Code:
 - Area code, e.g.: 33: Esztergom
 - Network Code, e.g.: 30: t-mobile
 - Service Code, e.g.: 80: green number
- Subscriber Number
- National Destination Number = NDC + SN
- Connection between the network and numbering hierarchies

Numbering (addressing)

- Open numbering scheme:
 - Two forms: national/local number
 - Local numbers shorter, but needs a national prefix (06 – in Hungary, 0 – in other European countries)

- Closed numbering scheme:
 - Always national destination number
 - Simple, unambiguous
 - One form, independently where to start the call from
 - Tendency in Europe (Norway, France, Italy, UK....)

National Destination Codes in Hungary

Area codes



AIB	2	3	4	5	6	7	8	9
2	Székesfehérvár	Biatorbágy	Szigetszentmiklós	Dunaújváros	Szentendre	Vác	Gödöllő
3	Salgótarján	Esztergom	Tatabánya	Balassagyarmat	Eger	Gyöngyös	-	-
4	Nyíregyháza	-	Mátészalka	Kisvárd	Miskolc	Szerencs	Ózd	Mezőkövesd
5	Debrecen	Cegléd	Berettyóújfal	<i>for test purposes</i>	Szolnok	Jászberény	-	Karcag
6	Szeged	Szentes	-	-	Békéscsaba	-	Orosháza	Mohács
7	Pécs	Szigetvár	Szekszárd	Paks	Kecskemét	Kiskunhalas	Kiskőrös
8	Kaposvár	Keszthely	Siófok	Marcali	-	Tapolca	Veszprém	Pápa
9	Zalaegerszeg	Nagykanizsa	Szombathely	Sárvár	Győr

National Destination Codes in Hungary

□ Service and Network Codes:

A/B	0	1
2	GSM (Telenor)	Nomadic service
3	GSM (T-Mobile)	GSM (Other operators)
4	Shared cost service („blue” number)	-
5	Reserved for new GSM operator	Internet access
6	-	-
7	GSM (Vodafone)	Corporate Networks
8	Freephone („green” number)	-
9	Premium rate service	Premium rate service (restricted content and price)