UNION INTERNATIONALE DES CHEMINS DE FER
INTERNATIONALER EISENBAHNVERBAND
INTERNATIONAL UNION OF RAILWAYS

GSM-R Network Management Group	Document No. N-9018
Title:	**GSM-R Network Codes**
Source:	**NMG**
Date:	**23/03/2022**
Authors:	**F. Coursant**
Version:	**3.0.1**
Status:	**Updated and Approved at NMG#32**
Pages:	**6**

Introduction

Based upon indications of the GSM-R Network Owners, an overview of the configuration data of the different GSM-R networks is needed. Therefore this document is created which records the network names and network codes implemented in the different (European) GSM-R networks.

The UIC NMG is tasked to administrate these data and to provide an actual overview for configuration purposes. For better overview, those GSM-R Networks which are members of the Transit Routing Agreement (TRA) and interconnected in the European GSM-R Overlay Network are highlighted in light-green colour.

It shall be noted that correctness and completeness of the provided information is a responsibility of the respective network Owners.

Content

For each country and/or network the following items are included in the overview:

1. Network Name
2. Mobile Country Code MCC
3. Mobile Network Code MNC
4. Country Code CC
5. National Destination Code NDC
6. International Code IC
7. Network Colour Code NCC
8. Anchor MSC Network Identifier AMNI

The complete Number Overview is given in the table below; an explanation of these items is given in Annex 1.

The table also contains for each country the responsible Network Operator and – when known - the latest revision date of the table information.

GSM-R Network Names and Codes

Country	Network owner	Network name	MCC	MNC	CC	NDC	IC	NCC	AMNI	Last Update
Albania		GSM-R AL			355		355	4	5	
Austria	ÖBB Infrastruktur	GSM-R A	232	91	43	50255	43	0	6	2019-03-14
Belgium	INFRABEL	GSM-R B	206	02	32	461(8)	32	0	2	2022-03-23
Belarus		GSM-R BY			375		375	1	1	
Bosnia Herzegovina		*GSM-R BA*			387		387	1	7	
Bulgaria	NRIC	GSM-R BG			359		359	1	1	
Croatia	HŽ Infrastruktura	GSM-R HR			385		385	3	2	
Czech Rep.	Sprava zeleznic	GSM-R CZ	230	98	420	959	420	1	7	2022-03-23
Denmark	Banedanmark	GSM-R DK	238	23	45	1023	45	1	9	2019-03-14
Estonia		*GSM-R EE*			372		372	2	4	
(F / GB)	Eurotunnel	GSM-R F	see France for detailed information							
Finland	FTA	*GSM-R FI*	244	17	358	4556	358	4	6	2003-07-09
France	SNCF Réseau	GSM-R F	208	14	33	669(8)	33	4	4	2019-03-13
Germany	DB Netz	GSM-R D	262	10	49	1835	49	7	0	2019-02-21
Greece	OSENET	GSM-R GR	202	04	30	691(8)	30	0	3	2008-03-24
Hungary	MAV	GSM-R HU	216	99	36	38 (88)	36	4	3	2019-02-25
Ireland		*GSM-R IE*			353		353	3	8	
Italy	RFI	GSM-R I	222	30	39	313	39	2	1	2019-02-25
Kosovo		GSM-R KO							9	2012-12-20
Latvia		GSM-R LV			371		371	2	3	
Lithuania		GSM-R LT	246	05	370	697	370	2	2	
Luxembourg	CFL	GSM-R L	270	71	352	6798	352	2	3	2019-02-22
Macedonia		GSM-R MK			389		389	2	6	
Moldova		GSM-R MD			373		373	4	6	
Montenegro	*ŽCG*	GSM-R ME							4	2012-12-20
Netherlands	ProRail	GSM-R NL	204	21	31	840(8)	31	1	1	2019-02-25
Norway	Bane NOR	GSM-R N	242	20	47	879	47	3	8	2019-02-25
Poland	PKP PLK	GSM-R PL	260	09	48	738(8)	48	4	8	2022-03-23
Portugal	Infraestruturas de Portugal	GSM-R P	268	12	351	703(80)	351	3	7	2019-02-25
Romania	CFR	GSM-R RO			40		40	2	0	
Russia		*GSM-R RU*			7xx		7	0	9	
Serbia		GSM-R SR			381		381	3	8	2012-12-20
Slovakia	ŽSR	GSM-R SK	231	99	421	959	421	2	4	2019-02-22
Slovenia	SŽ Infrastruktura	GSM-R SI	293	10	386	651	386	1	9	2019-03-14
Spain	ADIF	GSM-R E	214	51	34	888	34	1	6	2019-02-21
Sweden	Trafikverket	GSM-R S	240	21	46	7838	46	7	7	2019-02-28
Switzerland	SBB	GSM-R CH	228	06	41	512	41	1	5	2022-03-23
Turkey		GSM-R TR			90		90	2	2	
UK (Great Britain)	Network Rail	GSM-R GB	234	13	44	5555	44	1	9	2019-03-01
UK (N. Ireland)	*NIR*									
Ukraine		GSM-R UA			380		380	3	5	

Annex 1

1. GSM-R Network names

In the FFFIS for GSM-R SIM cards the following structure is given:

- "**GSM-R**" for EIRENE networks and/or
- "**P-GSM**" for the networks of national public roaming partners,

either of them to be followed by the respective **country sign (acronym).**

It should be noted that due to restrictions in specified and interoperable SIM cards the number of digits in the displays is limited to a total of 8. This total includes spaces and any sign. The following variants are possible:

- **GSM-R X[X]** and/or **P-GSM X[X]**
- **GSMR YYY** and/or **PGSM YYY**

2. Network codes

Mobile Country Code (MCC): The mobile country code uses a three-digit code identifying the subscriber's home country. This code is administered by International Telecommunications Union (ITU-T) recommendations T-REC-E.212.
Range: 000-999

Mobile Network Code (MNC): Identifies the network within the country. This code is administered by International Telecommunications Union (ITU-T) recommendations T-REC-E.212.
Range: 0-99

Country Code (CC): The country code uses a three-digit code identifying the subscriber's home country (geographic areas). This code is administered by International Telecommunications Union (ITU-T) recommendations T-REC-E.164.
Range: 001-999

National Destination Code (NDC): The national destination code also identifies an operator within a country. This code is administered by International Telecommunications Union (ITU-T) recommendations T-REC-E.164.
This code is also known to subscribers for dialing. It should be noted, that some networks only have obtained a partial NDC which has to be shared with other (non GSM-R) network provider. In this case, the allowed subsequent number(s) in use for the GSM-R network are displayed in brackets, e.g. NDC 669(8) in France means, that generally:

- only subscriber numbers starting with "8" are belonging to the GSM-R (F) network and can be dialed in the E.164 mode.
- Above mentioned cipher (8) is part of the (partial) NDC and leading digit of the MSISDN = CT 8 in the same time; thus only once to be dialed.
- Any other subscriber numbers (except CT 8) and functional numbers need to be dialed by using the EIRENE numbering plan instead of E.164.

International Code (IC): Defined by EIRENE, this shall consist of three digits and be based on the ITU-T Country Code administered by International Telecommunications Union (ITU-T) recommendations T-REC-E.164.
Range: 000-999

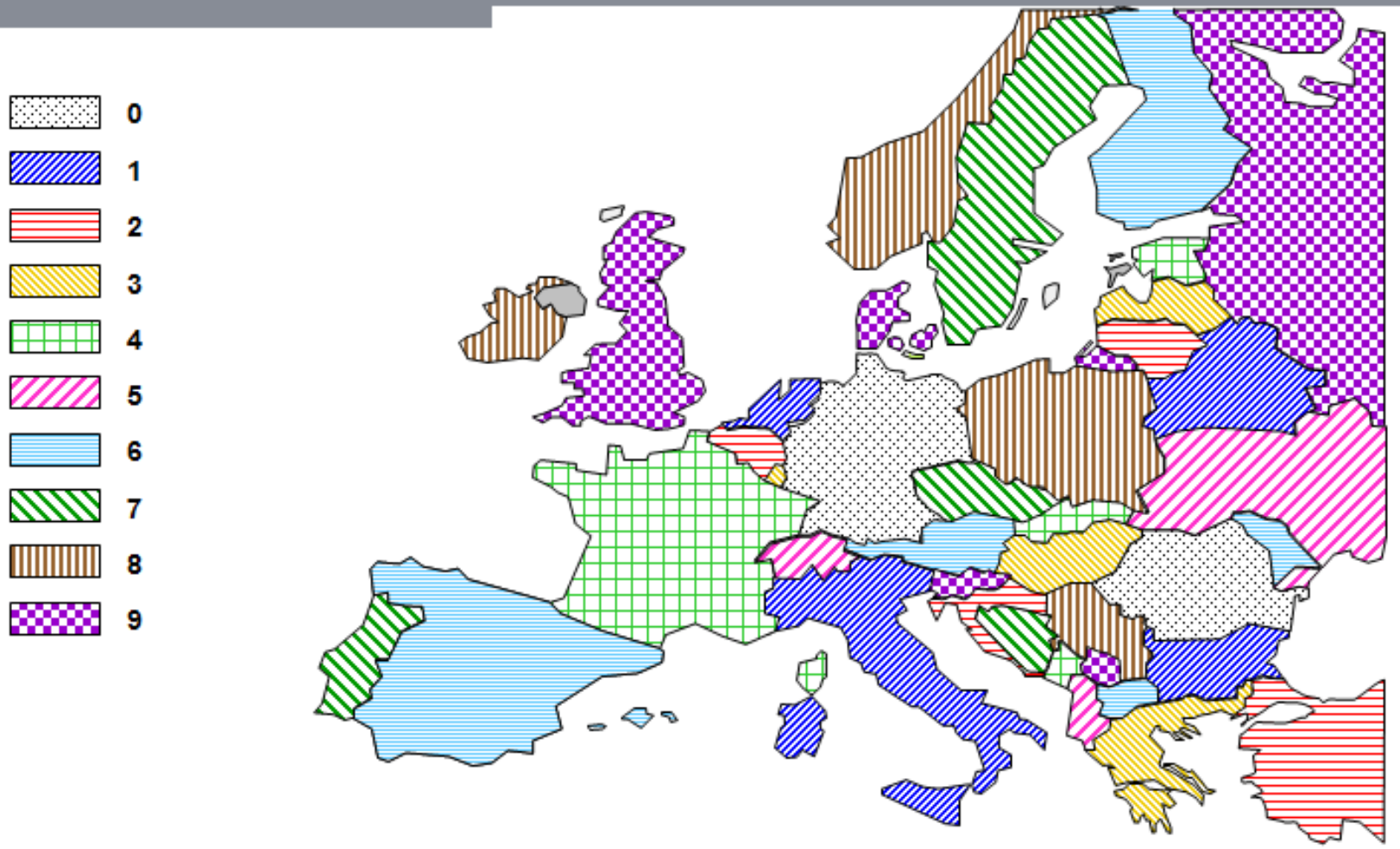
Network Colour Code (NCC): This value is reported only for completeness since is not used during dialling phases, neither has it to be stored on the SIM-Cards.
The network colour code consists of three bits and is not PLMN identification, but is used to distinguish between PLMNs.
Range: 0-7

Anchor MSC Network Identifier (AMNI): This value - replacing the formerly proposed term “country indicator” since the acronym “CI” is already in use for ‘Cell Identifier’ - applies for an international group call with a border crossing / shared group call area (BXGCA / SGCA) and indicates the network to which the anchor MSC (A-MSC) of the respective BXGCA or SGCA belongs to. The AMNI forms part of the group call reference number, which must be unique in each network and for all of its direct neighbours (see also chart on next page).
Range: 0-9

International Signalling Point Code (ISPC): For the purpose of a unique addressing of network elements in international ITU-T signalling number 7 networks, international Signalling Point Codes (ISPC) are used. ISPCs were assigned be the national telecommunication authority.
Range: 14 bit (in Europe)
Notation: 3-8-3 bit, each block in a decimal number. → Please refer to document ENIR 14070 for those now.

GSM-R in Europe
Anchor MSC Network Identifiers (AMNI)

N-1051



Dr. Pospischil, DB Netz AG I.NVT 21(A), 31.07.2014

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Published by:
International Union of Railways (UIC) - Railway Technical Publications (ETF)
16, rue Jean Rey 75015 Paris - France

March 2022
Copyright deposit: March 2022

ISBN 978-2-7461-3175-0