COMMUNICATIONS ALLIANCE LTD

INDUSTRY GUIDELINE

MOBILE NUMBER PORTABILITY- PORTED NUMBER REGISTER

G575:2024

G575:2024 Mobile Number Portability-Ported Number Register

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2009 Revision

In 2009, the Mobile Number Portability Code was revised. At that time all associated Mobile Number Portability documents were republished as Communications Alliance documents to reflect the change of organisational name from ACIF. Where relevant any references to other documents have also been updated.

2024 Revision

In 2024 the Mobile Number Portability Code was revised. Where relevant definitions and references have been updated to ensure consistency.

References to the CA validity period have been updated to reflect the change to CA validity period from 30 calendar days to 60 calendar days.

1 ACRONYMS AND DEFINITIONS

1.1 Acronyms

AMSNR

Allocated Mobile Service Number Register

CSP

Carriage Service Provider

CSPID

Carriage Service Provider ID

MC

Mobile Carrier

MCID

Mobile Carrier ID identification code

MNP

Mobile Number Portability

MSN

Mobile Service Number

NP

Network Provider

PMSNR

Ported Mobile Service Number Register

1.2 Definitions

Carriage Service Provider

has the same meaning as in the *Telecommunications Act 1997*

Customer

means a person to whom an MSN is Issued.

Donor Mobile Carrier

means the Mobile Carrier to which a block of MSNs allocated to a Donor CSP is assigned for call routing purposes.

Give Back

means a return of a Ported MSN from a Recipient CSP to the Donor CSP. Given Back has a corresponding meaning.

Issued

means when an MSN is considered to be Issued at the time that a CSP or their delegate and the Customer agree to the provision of a specific MSN for the Customer's use in association with a PMTS.

Mobile Carrier

means a Carrier that operates a Mobile Network.

Mobile Service Number

means a number that has been allocated under the Numbering Plan to a CSP for the provision of a Public Mobile Telecommunications Service.

Network Provider

means a OASD, TrSD or a PSD.

Port

means the movement of MSNs between CSPs, or MC Networks, using MNP processes. The words Porting and Ported have corresponding meanings.

Recipient Mobile Carrier

means the Mobile Carrier whose network is currently used by the Recipient CSP for the termination of calls to an MSN which has been Ported.

Standard Time

means:

a) Australian Eastern Standard Time (GMT plus 10 hours): or

b) If Eastern Daylight Savings Time (GMT plus 11 hours) is in effect and when any eastern seaboard State has introduced Daylight Savings Time, at that time.

2   REQUIREMENTS

There are two registers required to enable effective routing of calls following mobile number portability and updates of porting management systems. These are the:

- Allocated Mobile Service Number Register

  A file that contains the complete set of MSN ranges of allocatee CSP MSNs where that Mobile Carrier is contracted to the CSP (including itself) to supply a network for carriage of service on those MSNs. This file specifies the Donor default range.

- Ported Mobile Service Number Register

  Ported Mobile Service Number Register is a file that contains a list of MSNs where the data conditions described in the Allocated Mobile Service Number Register have changed as a result of Porting activity. That is, MSNs will be in the PMSNR if they no longer default to the Donor MC's network.

3   ACCESS, PRIVACY AND OPERATIONAL PROCEDURES

- Each Mobile Carrier will maintain a register of the allocatee CSPs' MSNs where that Mobile Carrier is contracted by the CSP to supply the network for carriage of service on those MSNs.

- The contents of the MNP Ported Number Registers (Allocated Mobile Service Number Register and the Ported Mobile Service Number Register) are provided by Mobile Carriers for the purposes of MNP, and can only be used by Network Providers and PSSs for the routing of calls, for Customer and network fault management and routing of SMS messages, but must not be used for any other purposes, including marketing purposes.

- The files must be maintained on the Donor MC's website with password protection provided by the Donor MC to ensure the registers are accessed only by authorised parties. Each Mobile Carrier will need to establish Operational Procedures for the purposes of issuing passwords and providing contacts to follow-up problems with accessing the file or resolving file accuracy issues.

- Gaining MCs should check regularly that Donor MC registers contain the correct porting information. Disputes about the accuracy of registers will need to be handled by MCs in accordance with the dispute procedures contained in their bilateral agreements supporting Mobile Number Portability.

4   FILE TYPE

Downloaded files will be ASCII Text fixed length records with a carriage return (ASCII 10) at the end of each record.

5 ALLOCATED MOBILE SERVICE NUMBER REGISTER

The AMSNR is a file that contains the complete set of MSN ranges of allocatee CSP numbers where that Mobile Carrier is contracted to the CSP (including itself) to supply network for carriage of service on those MSNs. This file specifies the Donor default range.

5.1 Naming Conventions

The file will follow the following naming convention:

AMSNRMCIDCCYYMMDD; where:

AMSNR	is a constant
MCID	is a 4 character numeric field representing the CSP as defined in the Communications Alliance MNP IT Specification Data Dictionary
CCYYMMDD	is the date that the file was created. CC = Century YY = Year MM = Month DD = Day

For example:

AMSNR000120010922

would be a file produced by a Mobile Carrier with CSPID 0001 on Saturday 22nd September 2001.

5.2 File Headers and Trailers

The Allocated Mobile Service Number Register must contain the following Header and Trailer information:

5.2.1 Header

Attribute	Length	Comment
Record Nr	NUM (2)	literal "00"
Record ID	CHAR (3)	literal "HDR"
MC ID	NUM (4)	is a 4 character numeric field representing the MC. The MCID will be that MC's CSPID as defined in the Communications Alliance MNP IT Specification Data Dictionary.
Date Stamp	NUM (8)	Date format CCYYMMDD where: CC = Century YY = Year MM = Month DD = Day
File Name	CHAR (17)	literal "ALLOCATED MSN REG"

5.2.2 Trailer

Attribute	Length	Comment
Record Nr	NUM (2)	literal "99"
Record ID	CHAR (3)	literal "TRL"
Number of Records	NUM (9)	Count of detail records in file (i.e. does not include header & trailer)

5.3 File Structure

The detail records contain the ranges of MSNs allocated to a CSP for which that Mobile Carrier is the Donor MC. One detail record is inserted in the file for each range held by the Carrier. Detail records are to be sorted by Start MSN Range, in ascending order.

TABLE 1
File Structure – Allocated Mobile Service Number Register

Attribute Name	Length	Comment	Mandatory
Record Nr	NUM (2)	literal "01"	Y
Start MSN Range	NUM (10)	e.g. 0411790000	Y
End MSN Range	NUM (10)	e.g. 0411799999	Y
Target Technology	NUM (3)	Code for technology type of this range. e.g. 001 = GSM, 002 = CDMA Note: These values are as per the Communications Alliance MNP IT Specification	Y

5.4 File Contents

Example 1 – Allocated Mobile Service Number Register

```
00HDR000120010922ALLOCATED MSN REG
01041133000000411339999001
01041179000000411799999001
01041245000000412459999001
01041556000000415569999001
99TRL000000004
```

5.5 Frequency of Update

Weekly after Standard Hours of Operations on a Saturday and before 4am Standard Time on each Sunday. Update to include new ranges must occur prior to the CSP Issuing MSNs from that new range.

6 PORTED MOBILE SERVICE NUMBER REGISTER

Ported Mobile Service Number Register is a file that contains a list of MSNs where the data conditions described in the Allocated Mobile Service Number Register have changed as a result of Porting activity. That is, MSNs will be in the PMSNR if they no longer default to the Donor MCs network.

This file shows the current status of the MSNs that meet the criteria below, that is MSNs which are not in the file match the default Donor range criteria.

6.1 Triggers for Addition of MSNs in PMSNR

A Donor MSN record must be added to the PMSNR if the MSN has undergone one of the following actions since the last file refresh:

- the MSN has been Ported away from the Donor MC; or

- the MSN has been Ported from its default network technology to a different technology by the Donor MC.

6.2 Triggers for Update of MSNs in PMSNR

A Donor MSN record must be updated in the PMSNR if the MSN has undergone one of the following actions since the last refresh:

- the MSN has been Ported to a Mobile Carrier (who is not the Donor MC) after the initial Port out from the Donor MC; or

- the MSN has been Ported between network technologies by a Recipient MC; or

- the MSN has undergone a Port in or Port reversal which has returned it to the Donor MC on a network technology other than its default.

6.3 Triggers for Deletion of MSNs from PMSNR

Donor MSN records should be deleted from the PMSNR if the MSN has undergone one of the following actions since the last refresh:

- the MSN has undergone a Port in or Port reversal which has returned it to the Donor MC on its default network technology; or

- the MSN has been Given Back to the Donor MC following cancellation from the Recipient MC's network; or

- the MSN has been Ported between network technologies by the Donor MC to return it to the criteria of the default Donor range criteria.

6.4 Naming Conventions

The file will adhere to the following naming convention:

PMSNRMCIDCCYYMMDDHHMM; where:

PMSNR	is a constant
MCID	is a 4 character numeric field representing the MC. The MCID will be that MC's CSPID as defined in the Communications Alliance MNP IT Specification Data Dictionary.
CCYYMMDDHHMM	is the date of the file. The file will be dated to include changes that are made through that day, where: CC = Century YY = Year MM = Month DD = Day HH = Hour (24) MM = Minutes

For example:

PMSNR0001200109250000

would be a file produced by a Mobile Carrier at midnight on Tuesday 25th September 2001.

6.5 File Headers and Trailers

The Ported Mobile Service Number Register must contain the following as Header and Trailer information:

6.5.1 Header

Attribute	Length	Comment
Record Nr	NUM (2)	literal "00"
Record ID	CHAR (3)	literal "HDR"
MC ID	NUM (4)	is a 4 character numeric field representing the MC. The MCID will be that MC's CSPID as defined in the Communications Alliance MNP IT Specification Data Dictionary.
Date/Time Stamp	NUM (12)	Date format CCYYMMDDHHMM where: CC = Century YY = Year MM = Month DD = Day HH = Hour (24) MM = Minute
File Name	CHAR (14)	literal "PORTED MSN REG"

6.5.2   Trailer

Attribute	Length	Comment
Record Nr	NUM (2)	literal "99"
Record ID	CHAR (3)	literal "TRL"
Total Detail Records	NUM (12)	Count of detail records in file (i.e. does not include header & trailer)
Number of Adds	NUM (9)	Count of detail records in file which have an add action
Number of Updates	NUM (9)	Count of detail records in file which have an update action

6.6   File Structure

The file is a list of MSNs that have undergone a change to move them outside of the default Donor range criteria. The daily action indicator of:

"A"   indicates the number was added to the file that day, while

"U"   indicates that the number is still outside of the allocated range, but it has been updated with new information since the initial Port out.

Note that the Add and Update action indicators are relevant to the date on which the action occurred. That is, they indicate that on the given date the Add or Update action occurred on the MSN within the file.

Detail records are to be sorted by MSN, in ascending order.

The new network technology is indicated by a 3 digit number code e.g 001 for GSM, and 002 for CDMA as described in the MNP IT Specification. File structure is as described below.

TABLE 2
File Structure – Ported Mobile Service Number Register

Attribute Name	Length	Comment	Mandatory
Record ID	NUM (2)	literal "01"	Y
MSN	NUM (10)	e.g. 0414467271	Y
MCID	NUM (4)	Carrier numerical identification as used in the Communications Alliance MNP IT Specification. The Recipient MC for the MSN. e.g. 0001 (for Optus)	Y
Target Technology	NUM (3)	Code for current technology type of the MSN, as used in the Communications Alliance MNP IT Specification. e.g. 001 = GSM, 002 = CDMA, etc	Y
Action Indicator	CHAR (1)	"A" or "U"	Y

Trigger Date/Time Stamp	NUM (12)	Date format CCYYMMDDHHMM where: CC = Century YY = Year MM = Month DD = Day HH = Hour (24) MM = Minute Date/Time that the trigger event is completed	Y

6.7   File Contents

Example 2 – Ported Mobile Service Number Register

```
00HDR0001200109250000PORTED MSN REG
0104017518640002001A200109251109
0104113309870010001U200109250902
0104117901230004001A200109250901
0104128715130004001A200109251034
0104168376510001002U200109251502
99TRL0000000000050000000003000000002
```

6.8   Frequency of Update

Daily after Standard Hours of Operation and before 4am Standard Time of each day excluding Monday 4am.

Files are to be produced even if empty (i.e. no numbers are outside the allocated range). Such files would consist of a header and footer record only with all footer counters set to zero.

PARTICIPANTS

The Working Committee responsible for the revisions made to this Guideline consisted of the following organisations and their representatives:

Organisation	Membership	Representative
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This Working Committee was chaired by Alexander R. Osborne. Craig Purdon of Communications Alliance provided project management support.

Communications Alliance was formed in 2006 to provide a unified voice for the Australian communications industry and to lead it into the next generation of converging networks, technologies and services.

In pursuing its goals, Communications Alliance offers a forum for the industry to make coherent and constructive contributions to policy development and debate.

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