

1.0 PURPOSE AND SCOPE

This document contains the guidelines and procedures for the assignment and use of International Mobile Subscriber Identities (IMSI) in the United States with consideration given to other North American Numbering Plan (NANP) countries.

- 1.1 The IMSI was created and formatted to provide the unique international identification of mobile terminals and mobile users and to enable these terminals and users to roam among public networks which offer public mobility services.
- 1.2 These assignment guidelines pertain, in one section or another, to all segments of the IMSI. The IMSI administrator (IMSI-A) participates in the management of all segments of the IMSI, but directly administers only the Home Network Identity (HNI) segment. HNIs are assignable to operators of public networks offering public mobility services with international roaming capabilities. The HNI uniquely identifies the home network of a public mobility service subscriber and contains the Mobile Country Code (MCC) and the Mobile Network Code (MNC). The remaining segment of the IMSI, the Mobile Station Identification Number (MSIN), is directly administered by the network operator to which the HNI is assigned.
- 1.3 These guidelines were developed by the consensus of representatives of entities within the telecommunications sector of the United States. This consensus was achieved during meetings of the IMSI Management Forum (IMF), the open industry forum chartered to manage and oversee the administration of IMSIs. (See the document *IMSI Management Guidelines and Procedures* appended to this document as a non-integral Appendix.)
- 1.4 These guidelines apply throughout the United States, excluding those United States Territories assigned their own unique MCCs, and do not supersede the regulations, procedures or requirements of the FCC or any other appropriate legal or regulatory authority.
- 1.5 These guidelines are based on the content of International Telecommunications Union – Telecommunications’ (ITU-T) Recommendation E.212, *The International Identification Plan For Mobile Terminals and Mobile Users*. This Recommendation was revised in 1998. The content of this document is in conformance with that iteration of the Recommendation. A copy of this version of Recommendation E.212 is included as Attachment 1 to this document.

2.0 REFERENCES

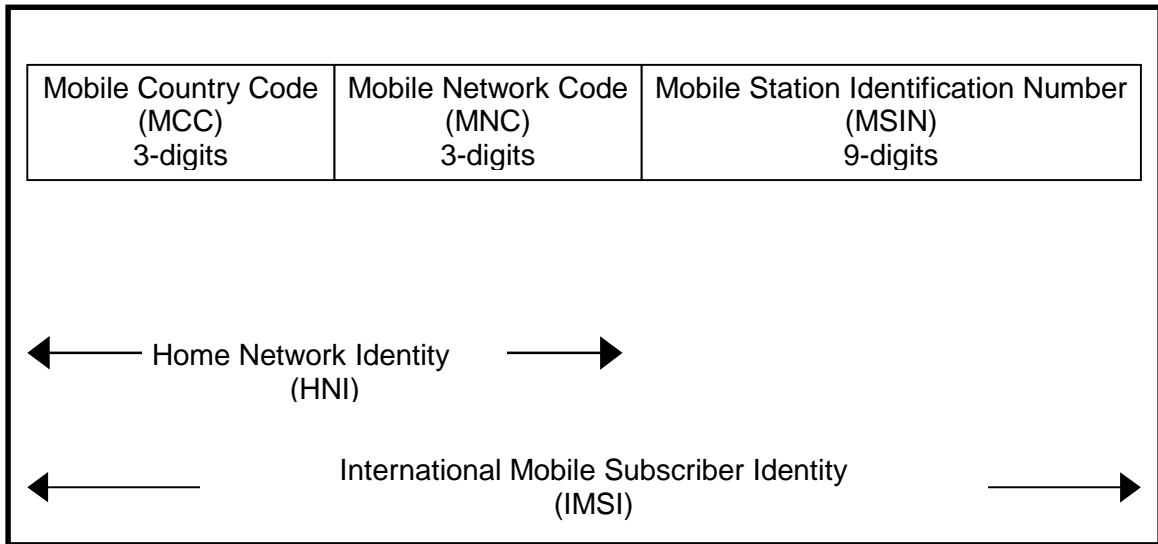
- 2.1 ITU-T Recommendation E.212, *The International Identification Plan For Mobile Terminals and Mobile users* (included as Attachment 1 to this document).

3.0 IMSI FORMAT, FUNCTION, AND MANAGEMENT

- 3.1 The IMSI format and function are based on ITU-T Recommendation E.212. The addition of a definition for an HNI, not contained in the Recommendation, is necessary in a country, such as the United States, allocated multiple MCCs by the ITU.
- 3.2 Each IMSI uniquely identifies the mobile terminal/user, the home network of the mobileterminal/user, and the home country of the network and of the mobileterminal/user.
- 3.3 The IMSI enables mobile terminals/users to roam among public networks, domestically and internationally, by providing a uniform and unique home network and mobile terminal/user identification that is recognizable by all conforming public networks. When transmitted between visited and home networks, the IMSI enables the exchange of subscription and billing information for the visiting mobile station.

Specifically, the IMSI is used for:

- Determination of the mobile terminal's/user's home network,
 - Mobile terminal/user identification when information about a specific mobile terminal/user is to be exchanged between visited and home networks,
 - Mobile station identification on the radio control path for registering a mobile station in a visited wireless network,
 - Mobile station identification for signaling on the radio control path,
 - Identification of the mobile terminal/user to allow for charging and billing of visiting mobile terminals/users, and
 - Subscription management, i.e., retrieving, providing, changing, and updating subscription data for a specific mobile terminal/user.
- 3.4 The format of the IMSI in the United States is:



3.5 The IMSI format in the United States is a fixed 15-digit length -- the maximum allowable by Recommendation E.212. Each IMSI contains an MCC, an MNC, and an MSIN. The MCC and MNC combine to form the US-defined HNI, which is the segment of the IMSI directly administered by the IMSI administrator. MSINs are administered directly by the network operator to which the HNI is assigned.

3.6 The function of the MCC is to identify the domiciliary country of a mobile terminal/user. By analyzing the MCC, a visited network can determine the country from which the mobile terminal/user originated and in which its home network resides.

According to Recommendation E.212, an MCC is three digits in length and is in the format NXX, where N equals any of the decimal digits 2-9, and X equals any of the decimal digits 0-9. MCCs are assigned by the ITU in response to formal requests from recognized national administrations of ITU-member countries -- in the United States, the Department of State. The seven MCCs currently assigned to the United States, not including its Territories, are "310" through "316".

3.7 The function of the MNC is to identify the home network, within the country associated with the MCC, of the visiting mobile terminal/user. The visited network uses the MCC-MNC combination to identify and query the home network of the visiting mobile terminal/user that is requesting service.

MNCs in the United States are three digits in length and in the format XXX, where X equals any of the decimal digits 0-9. The 3-digit maximum is necessary so that, when combined with the 3-digit MCC, the visited network need not analyze more than 6 digits to determine the home

network of the visiting mobile terminal/user, another Recommendation E.212 requirement. This format provides a mathematical potential of one thousand MNCs (000-999) for each MCC. Consequently, a mathematical potential of seven thousand public networks can be served by the seven MCCs allocated to the United States.

- 3.8 The function of the MSIN is to uniquely identify a mobile terminal/user within its home network.

MSINs in the United States are nine digits in length and in the format XXXXXXXXXX, where X equals any of the decimal digits 0-9. Recommendation E.212 limits IMSI length to a fifteen-digit maximum. Since the United States IMSI format includes a six-digit HNI, a nine-digit MSIN is the maximum allowable. The nine-digit format provides one billion MSINs per MNC or network, if no other function than mobile terminal/user identification is embedded in the MSIN.

- 3.10 The HNI contains the MCC followed by the MNC and is a fixed 6-digit length in the United States. The HNI is required in a country with multiple allocated MCCs because analysis of both the MCC and the MNC is required to uniquely identify the home network since MNCs will be duplicated within the multiple MCCs allocated to the country. The HNI is not specified in Recommendation E.212. It has been created and defined in the United States to address the lack of MNC uniqueness inherent in a multiple MCC environment.

- 3.11 The IMSI Oversight Council (IOC) was formed to manage the IMSI resource in the United States and to oversee the performance of the IMSI-A. The management of the resources includes such functions as Assignment Guidelines maintenance, ensuring the adequacy of the resource inventory, and ensuring the appropriate function and use of the resource. Annex B, of these Guidelines contains the IOC Management Guidelines and Procedures. This Annex is an integral part of these Guidelines.

4.0 ASSUMPTIONS AND CONSTRAINTS

These guidelines are based on the following assumptions and constraints:

- 4.1 These guidelines and procedures should provide the greatest latitude to those providing public mobility services, while permitting the effective and efficient management of a finite resource.
- 4.3 Although the quantity of IMSIs available within the seven MCCs currently allocated to the United States is substantial, the demand for HNIs may, at some time in the future, exceed the capacity of the seven MCCs initially assigned to the United States. Planning for MCC exhaust and obtaining additional MCC resources are discussed in Section 11.
- 4.4 The guidelines and procedures for IMSI assignment in the United States, as set forth in this document, remain in effect until there is either industry consensus or regulatory policy direction to change them.
- 4.5 These guidelines do not describe the method by which IMSIs are transmitted across and processed by public networks. Network interworking arrangements are contained in other standards, documents, or business agreements.
- 4.6 There are authorized HNI application and maintenance fees. Each application must have an accompanying HNI application fee payment or the application will be returned. The HNI application fee funds the HNI Administration function. Additionally, each HNI assignee will be separately assessed an annual HNI maintenance fee. The revenues from this latter fee are for the funding of the IMSI Oversight Council (see the IOC Management Guidelines and Procedures, Annex B, Section 5).

5.0 ASSIGNMENT PRINCIPLES

The assignment principles defined below allow public network operators the greatest possible latitude in providing public mobility service and the users of these services the widest possible roaming capabilities.

- 5.1 HNIs are to be assigned and used only by public networks offering public mobility services (Section 1.1).
- 5.2 Upon application, the IMSI-A will assign one HNI for each valid network operator. Nothing shall preclude a network operator, however, from aggregating multiple or merged networks/licenses within a single HNI.
- 5.3 The 6-digit HNI, as part of the 15-digit IMSI, is to be assigned so as to uniquely identify the home network of the terminal/user.
- 5.4 MSINs are assigned by network operators to their subscribed mobileterminals/users. An IMSI is unique to a single mobileterminal/user, but a mobile terminal/user may have multiple IMSIs.
- 5.5 IMSIs and HNIs shall be assigned to permit the most effective and efficient use of a finite resource in order to maximize the existing allocated resource inventory and to defer, as long as practical, the need to request additional MCC resources.
- 5.6 IMSIs are a public resource. The assignment of any portion of an IMSI (i.e., HNI, MSIN) does not imply ownership of the resource by either the entity to which it is assigned or by the entity performing the administrative function.
- 5.7 Should an assignee transfer control of the CMRS license or a portion of its serving area under an existing license, then the use of the assigned HNI is transferable to the new license owner.
- 5.8 The IMSI administrator will:
 - Assign HNIs in a fair, timely and impartial manner to any applicant that meets the criteria for assignment (Section 6).
 - Assign HNIs on a first come, first served basis from the available pool of unassigned HNIs.
 - Make all assignments based on the procedures in these guidelines (Section 8).

- Treat sensitive information received from applicants as proprietary and confidential, and not to be shared with non-administrator personnel.
- 5.9 Information that is requested of applicants in support of an HNI application shall be uniform and kept to a minimum.
- 5.10 Assigned HNIs should be deployed as soon as possible, but no later than twelve months after assignment. If the assignee can demonstrate that an assigned HNI has not been deployed solely due to delays beyond its control, the time period can be extended for up to 90 days. At the discretion of the administrator, one additional 90-day extensions may be granted without the approval of the IOC.
- 5.11 An entity which is denied an HNI assignment or extension under these guidelines has the right to appeal that decision (Section 13).
- 5.12 These guidelines have no effect on HNI assignments made prior to their approval. Use of all assigned resources shall be consistent with these guidelines.
- 5.13 A working HNI recovered or returned to the administrator for reassignment will remain dormant for a period of not less than 180 days, from the date of return to the HNI pool, before reassignment. If an HNI is recovered or returned and was never working in the current assignee's network, the HNI is immediately reassignable, i.e., no dormancy is required.
- 5.14 There is an administrative fee associated with an application for an HNI
- 5.15 As required, applicants for HNIs must comply with all applicable local, state, and federal regulations relative to the provisioning of public mobility service.

6.0 CRITERIA FOR HNI ASSIGNMENT

The assignment criteria in the following paragraphs should be considered by a potential HNI applicant before submitting an HNI application and will be used by the IMSI administrator in reviewing and processing an HNI application:

- 6.1 The HNI applicant must be, and certify that it is a public network operator offering public mobility services.
- 6.2 The applicant/assignee of an HNI must have and provide evidence of authorization, if required, from the appropriate federal, state or local regulatory authorities to operate in the area in which it intends to provide public mobility services.
- 6.3 Applicants must offer public telecommunications service. Public telecommunications service is defined as a public service, the subscribers to which must be capable of being reached over the PSTN.¹
- 6.4 Applicants must offer non-discriminatory access of this resource to users. That is, the applicant must offer the availability of services to any end-user customer requesting the service.
- 6.5 The applicant must certify that the HNI will be used for mobile applications. That is, the applicant must certify that the service provided will have at least two of the following characteristics:
 - Access to a service profile² management system. Service profile management is the ability to access and manipulate a service profile. The user, the subscriber or the provider can perform Service profile management.
 - Terminal Mobility – The ability of a terminal to access telecommunication services from different locations and while in motion, and the capability of the network to identify and locate that terminal.
 - Personal Mobility – the ability of a user to access telecommunications services at any terminal on the basis of a personal identifier, and the capability of the network to provide those services according to the user's

¹ The PSTN is composed of all transmission and switching facilities and signal processors supplied and operated by all telecommunications common carriers for use by the public. Every station on the PSTN is capable of being accessed from every other station on the PSTN via the use of NANP E.164 numbers

² Service profile—a record containing all the information related to a user in order to provide that user with service (*i.e.*, a database).

profile. Personal mobility involves the network capability to locate the terminal associated with the user for the purpose of routing

- 6.6 An HNI will only be assigned by the administrator upon receipt and approval of a completed *Form A – Home Network Identity (HNI) Application*. The payment of the application fee must accompany the application or the application will be returned. An application for additional HNI assignments will only be processed if the annual maintenance fees of the applicant/assignee are paid up to date.

7.0 RESPONSIBILITIES OF HNI APPLICANTS AND ASSIGNEES

Entities requesting HNI assignments and entities already assigned one or more HNIs shall comply with the following:

- 7.1 HNI applicants and assignees must meet all conditions specified in these guidelines. Copies of the guidelines may be obtained from the IMSI administrator.
- 7.2 Applicants must apply in writing to the IMSI-A by completing *Form A - Home Network Identity (HNI) Application*. Copies of all required forms are included in Attachment 2 to these guidelines.
- 7.3 HNI assignees shall:
 - 7.3.1 Assign and efficiently manage the MSINs (last nine digits of the IMSI) associated with the assigned HNI. Maintain up-to-date and accurate assignment records that match MSINs to mobile terminals/users. These records may be required for audit purposes (Annex A).
 - 7.3.2 Inform the IMSI-A of changes in the information associated with an HNI assignment by using *Form D - Request for Change in Home Network Identity (HNI) Assignment Information*. Changes may occur because of the transfer of an HNI, through merger or acquisition, to a different network (Section 5.7). The initial assignee of the HNI involved in a transfer occurring through merger, acquisition or other means must immediately inform the IMSI administrator when such a change becomes effective. Timely submission of change information enables the IMSI-A to maintain accurate HNI assignment records.
 - 7.3.3 Participate in the IMSI audit process, when requested (Annex A).
 - 7.3.4 Deploy any HNI, assigned either directly by the IMSI-A or obtained through merger or acquisition, within the time period specified (Section 5.10). Inform the IMSI administrator of HNI deployment by submitting *Form C - Home Network Identity (HNI) Deployment*.
 - 7.3.5 Apply to the IMSI-A for an extension (Section 5.10) if the deployment requirement cannot be met and the HNI is still required.
 - 7.3.6 Return to the IMSI-A, using *Form F - Home Network Identity (HNI) Assignment Return*:

- Any HNI no longer needed for the provision of public mobility services ,
- Any HNI not deployed within the time period specified, including extensions (Section 5.10), or
- Any HNI not used in conformance with these assignment guidelines.

8.0 RESPONSIBILITIES OF THE IMSI ADMINISTRATOR (IMSI-A_

The role of the IMSI-A is to manage the entire IMSI resource and to directly administer the HNI segment of the IMSI. In this context, the IMSI administrator shall:

- 8.1 Provide to the industry general and specific information on the structure and proper use and management of IMSIs.
- 8.2 Provide copies of these guidelines and forms to HNI applicants and assignees, and assist them in completing the required forms.
- 8.3 Review and process HNI applications as follows:
 - 8.3.1 Review the application to determine if all requested information is provided and credible. If not, return the application to the applicant requesting that any deficiency be corrected.
 - 8.3.2 Inform applicants of the status of their requests using *Form B – Home Network Identity (HNI) Application Disposition*. There are three possible dispositions: approved, denied, or additional information required. Notify the applicant in writing of the disposition within ten working days from receipt of Form A. The response will include:
 - If assigned, the specific HNI(s) assigned,
 - If denied, the reasons for denial and instructions on how and where to appeal the decision,
 - If additional information is required, the specific information required.
- 8.4 Use the following HNI assignment procedures:
 - 8.4.1 The administrator shall generally assign HNIs in numerical sequence by MCC and by MNC within each MCC. The next MCC in numerical sequence should not be used until all MNCs in the preceding MCC have been assigned.
 - 8.4.2 There may be technical considerations or limitations on the part of the applicant that require a specific assignment or preclude them being able to use the next consecutive MNC assignment. These exceptions are set forth below and in the Addenda (if any) to this document.

Accommodation for backward compatibility for existing public networks offering public mobility services only identified by 10-

digit mobile identification numbers (MINs): The following HNIs are not available for assignment in order to support inter-networking with wireless network licensees requiring backward compatibility for existing public networks offering public mobility services only identified by 10-digit MINs:

310–000 through 310–009

- 8.4.3 HNI applicants eligible for multiple MNCs may request that such MNCs be assigned in the next available block of numerically sequential codes (excepting those MNCs reserved or unavailable for assignment, pursuant to Section 8.4.2 or any subsequent addenda to these guidelines). In such cases, a separate Form A should be submitted for each MNC required, along with a cover letter requesting their assignment in a sequential block.
- 8.4.4 When reassigning an HNI that has been returned or reclaimed, the administrator will ensure that the HNI has remained dormant for the required period (Section 5.13).
- 8.4.5 A returned or reclaimed HNI should be reassigned, following the required dormant period, prior to the assignment of any HNI from a MCC of higher numerical value than the returned or reclaimed HNI.
- 8.5 Maintain accurate and current HNI assignment records. Update the records as required to respond to requests for changes in assignment information reported by HNI assignees (Section 7.3.2). Respond to these requests within ten working days using *Form E – Confirmation of Change of Home Network Identity (HNI) Assignment Information*.
- 8.6 Publish, at least monthly, via the agreed medium, a list of assigned HNIs. The list will include the HNI number, the HNI assignee, and the entity contact and number. Track the number of IMSIs assigned and the assignment rate and report this data regularly to the IMSI Oversight Council (IOC).
- 8.7 Investigate any HNI that has not been deployed within the required time frame, and issue extensions if appropriate (Section 5.10). The IMSI Administrator will forward a letter to each IMSI Assignee that has not reported the implementation of an assigned IMSI(s) in conformance with Section 5.10, i.e., at the 1 year initial implementation date and at the end of an implementation extension(s). The letter will request the implementation status of the assigned IMSI(s) and state that if implementation confirmation, or an extension request, is not received within 30 days the IMSI(s) is subject to reclamation/reassignment. Notify

the IMSI Oversight Council (IOC) if an assignee fails to deploy an assigned HNI within the allotted extensions.

- 8.8 Reclaim assigned HNIs (Section 9), as needed.
- 8.9 At the determination of the IMSI Oversight Council, the IMSI-A may be requested to perform assignment audits. This requirement is not considered to be the ongoing responsibility of the IMSI-A unless agreed to by the Council. The IMSI-A may recommend to the Council that a specific audit be performed. See Annex A for the future and potential auditing process. This Annex is not an integral part of these Guidelines. If/when the Council directs the conduct of an audit, a method of remuneration for the IMSI-A's time and effort will be jointly determined by the Council and the IMSI-A.
- 8.10 Inform the United States telecommunications industry, via the agreed method, of any revisions to these guidelines (Section 12).

9.0 HNI RETURN AND RECLAMATION PROCEDURES

9.1 Assignee responsibilities:

Assignees will return HNIs that are no longer required, not deployed, or not used in conformance with these assignment guidelines (Sections 5.10, 7.3.5 - 7.3.6).

Assignees will cooperate with the IMSI-A in carrying out its reclamation and auditing responsibilities.

9.2 IMSI-A responsibilities:

The IMSI-A will contact any HNI assignee identified as not having returned to the IMSI-A, for reassignment, any HNI no longer required, not deployed, or not used in conformance with these assignment guidelines (Sections 5.10, 7.3.5 - 7.3.6), including non-payment of the annual HNI maintenance fee(s).

The IMSI-A will first seek clarification from the assignee regarding any alleged non-use or misuse. If the assignee provides an explanation satisfactory to the IMSI-A, and in conformance with these assignment guidelines, the HNI will remain assigned. If no satisfactory explanation is provided, the administrator will request a letter from the assignee returning the assigned HNI for reassignment. If a direct contact can not be made with the assignee to effect the above process, a registered letter will be sent to the assignee address of record requesting that they contact the administrator within thirty days regarding the alleged HNI non-use or misuse. If the letter is returned as non-delivered, the administrator will advise the appropriate industry forum that the HNI will be made available for reassignment following the required dormant period (Section 5.13), if any, unless the forum advises otherwise within thirty days.

The IMSI-A will refer to the appropriate industry forum any instance which is not resolved through the procedures in the paragraph above.

9.3 IMSI Oversight Council responsibilities

- Accept all referrals of alleged non-use or misuse of HNIs from the IMSI administrator or any other entity,
- Investigate the referral,
- Review referrals in the context of these assignment guidelines,
- Attempt to resolve the referral, and

- Direct the IMSI-A regarding the action, if any, to be taken (If the action to be taken is not in conformance with the existing guidelines, the forum will initiate the guidelines revision process [Section 12]), or
- Refer the case to the appropriate regulatory body for resolution if the forum cannot reach consensus on a resolution, or
- Refer the case to the appropriate regulatory body if the HNI assignee will not comply with the consensus resolution developed by the forum.

11.0 MCC RELIEF PLANNING

- 11.1 When all the HNIs in all but two of the MCCs assigned to the United States have been assigned, or assignments are exceeding 10% of the resource per quarter, the administrator will inform the IOC.
- 11.2 When the IMSI-A informs the IOC that the MCCs assigned to the United States are approaching exhaust, the forum will:
- Conduct an audit of current IMSI assignments to ensure that efficient IMSI utilization is in effect, and, if not,
 - Recommend additional procedures to be initiated to effect more efficient IMSI utilization, or if efficient utilization is in effect,
 - Provide the requisite data to the United States Department of State and request that it obtain additional MCC resources from the ITU-T, if required.
- 11.3 Using data provided by the IOC, the United States Department of State will request additional MCC resources for the United States from the ITU-T and will inform the forum of the result. Currently, MCCs 317-329 are not allocated. Should additional MCCs be required by the United States, MCCs in this list of unallocated MCCs could be requested in order to continue with consecutive MCC allocations.

12.0 MAINTENANCE OF GUIDELINES

It may be necessary to modify the guidelines periodically to meet changing and unforeseen circumstances. The need for guidelines modification may be identified by the administrator, any entity in the telecommunications sector or the IOC. When need for modification is identified by other than the forum, the identifying entity will submit the modification issue to the forum. The forum will coordinate the modification process. Questions or concerns regarding the maintenance of the guidelines may be directed to the IMSI-A.

13.0 APPEALS PROCESS

Disagreements may arise between the IMSI-A and HNI applicants or assignees in the context of the administration and management of IMSIs and the application of these guidelines. In all cases, the IMSI-A and HNI applicants/assignees will make reasonable, good faith efforts to resolve such disagreements among themselves, consistent with the guidelines, prior to pursuing any appeal. Appeals may include, but are not limited to, one or more of the following options:

- The HNI applicant/assignee will have the opportunity to resubmit the matter to the administrator for reconsideration with or without additional input.
- Guidelines interpretation/clarification questions may be referred to IOC for resolution. Unless otherwise mutually agreed to by the parties, these questions will be submitted in a generic manner protecting the identity of the appellant.
- The applicant/assignee may pursue the disagreement with the appropriate governmental/regulatory body.

Reports on any resolution resulting from the above options, the content of which will be mutually agreed upon by the involved parties, will be kept on file by the administrator. At minimum, the report will contain the final disposition of the appeal; e.g., whether or not an HNI was assigned.

14.0 GLOSSARY

Conservation – Consideration given to the efficient and effective use of a finite resource in order to minimize the cost and need to expand its availability while at the same time allowing the maximum flexibility in the introduction of new services, capabilities and features.

Home Network Identifier (HNI) – The HNI is the aggregate of the MCC and MNC and is uniquely required in countries with more than a single MCC. The existence of multiple MCCs in a country necessitates that both the MCC and MNC must be analyzed to determine the home network of a roaming terminal/user, hence the need for HNI functionality. The HNI is the resource for which these Assignment Guidelines were developed and which the IMSI-A administers.

HNI assignee – The entity to which an HNI has been assigned for the provision of public mobility services. This enables international roaming capability.

Home network – The network to which a given mobile terminal/user is subscribed.

International Mobile Subscriber Identity (IMSI) – The string of decimal digits, up to a maximum of 15 digits, that identifies a unique mobile terminal or mobile subscriber internationally. The IMSI consists of three fields; the Mobile Country Code (MCC), the Mobile Network Code (MNC), and the Mobile Station Identification Number (MSIN). The MCC is uniformly 3-digits in length and identifies the home country of a roaming terminal/user. The MNC is 3-digits in length in the United States and identifies the home network of a roaming terminal/user (see HNI definition above). The MSIN is 9-digits in length in the United States and uniquely identifies the roaming subscriber/terminal. The use of an IMSI enables international roaming capability.

International Roaming Capability: The ability of a mobile terminal/user to originate and receive calls and other telecommunications services while outside their home country.

Mobile Country Code (MCC) – The first field of the IMSI that is 3 digits in length. An MCC either identifies a country or a group of Networks that share an MCC for international services.

Mobile Network Code – The second field of the IMSI that is 2 or 3 digits in length, The MNC, in combination with the MCC, uniquely identifies the home network of the mobile terminal or mobile user. In the US, the combination of the MCC and MNC is the HNI.

Mobile Subscriber – An entity or person that contracts to receive or pay for a public mobility service.

Mobile Subscriber Identification Number (MSIN) – The third field of the IMSI that is a maximum of 10 digits. The MSIN within a given MCC+MNC (HNI) identifies a unique mobile terminal or mobile subscriber within a public network.

Mobile Terminal – Any portable, transportable, or handheld terminal supporting public mobility service.

Mobile User – A user that utilizes a subscription to access a public mobility service.

Network Operator – The entity responsible for the maintenance and operation of a public telecommunications network which supports public mobility services.

Public Mobility Service – A public telecommunications service that supports voice and/or data mobility for terminals or users by providing access to and from the public network via a home network and/or visited network(s).

Visited network – The network providing service to a subscriber when the subscriber roams outside the home network.

ANNEX A

IMSI RESOURCE CONSERVATION AND ASSIGNMENT AUDITS

1.0 At the determination of the IMSI Oversight Council, the IMSI Administrator (IMSI-A) may be requested to perform assignment audits. This requirement is not considered to be the ongoing responsibility of the IMSI-A unless agreed to by the Council. The IMSI-A may recommend to the Council that a specific audit be performed.

2.0 Assignment and management of United States IMSI resources are undertaken with the following conservation objectives:

- To efficiently and effectively administer/manage a limited resource through code conservation, and
- To eliminate or delay the exhaust potential for the MCCs currently assigned to the United States.

The process to achieve these objectives should not impede the introduction of competitive services utilizing IMSI station identifiers.

3.0 The ITU-T will certainly require a compelling reason for the allocation of more than 7 billion MSINs and 7000 HNIs -- the number in the United States inventory based on the format described above -- to one country. To promote the efficient and effective use of numbering resources, audits of HNI assignments may be performed to ensure consistent compliance with these guidelines.

4.0 The IMSI-A will track and monitor IMSI assignments and assignment procedures to ensure that all segments of the IMSIs are being used in an efficient and effective manner. Ongoing administrator procedures that foster conservation shall include, but not be limited to, the following:

- An active reclamation program to reclaim unused or misused HNIs,
- Strict conformance with these guidelines by those assigning HNIs and MSINs,
- Appropriate and timely modifications to these guidelines to enhance text that may have allowed inefficient use of IMSIs and HNIs,
- Periodic specific and random audits of assignments and assignment procedures.

5.0 The IMSI-A may conduct an audit of an HNI assignee's assignment records. The audit may be precipitated by a complaint from outside the administrator's organization or by the administrator. The purpose of an audit will be to verify the HNI assignee's compliance with the provisions set forth in these guidelines.

5.1 These audits will be conducted at the HNI assignee's premises or at a mutually agreed to location and at a mutually agreed to time.

5.2 The IMSI administrator will not copy or remove the information from the premises nor will they disclose the information to non-IMSI administrator personnel.

5.3 The IMSI-A will expect to review the following information to ensure conformance with these guidelines and the proper use of the IMSI resource:

- Verification that not more than one HNI is assigned per network or wireless license,
- Verification of assignment for each working MSIN,
- Date of assignment of each working MSIN,
- Activation date of each working MSIN,
- Indication of MSIN assignment to end users, and
- Status and status date of each MSIN unavailable for assignment; i.e., MSINs assigned for testing, reserved, aging, pending and/or, suspended.

6.0 Audit results should be used to identify and recommend to the appropriate industry forum specific corrective actions that may be necessary. Examples of specific corrective actions which may be proposed are as follows:

- Modifications to these assignment guidelines to reflect the specific circumstance revealed by the audit,
- Additional training for HNI assignees concerning the assignment guidelines,
- Return of assigned HNIs,
- Requirements for supporting documentation of future HNI requests in non-compliant situations, or
- Modifications to the process in which records are maintained or HNIs are assigned.

7.0 Audit results with respect to HNI assignee information and/or recommended HNI assignee process modifications shall be treated on a proprietary and confidential basis.

8.0 Failure to participate/cooperate in an audit shall result in the activation of HNI reclamation procedures (Section 9).

Addendum 1

Temporary Accommodation for "GSM-Based" Wireless Networks

Currently GSM-based wireless public networks can handle only 2-digit MNCs. This limitation can be accommodated, until such time as GSM-based wireless public networks will be modified to support 3-digit MNCs, through the following temporary assignment guideline:

- Until July 1, 2003, MNCs in the format XX0, where X equals any of the decimal digits 0 through 9, are reserved for assignment to CMRS license holders choosing to deploy "GSM-based" technology. When a licensee meeting this requirement requests code assignment, the next such code in numerical sequence will be assigned. Such codes from the next consecutive MCC should not be assigned until all such codes from the preceding MCC have been assigned.
- Until July 1, 2003, MNCs in the format XX1 through XX9 should not be assigned to CMRS license holders choosing to deploy "GSM-based" technology.