

## **DEVELOPMENT OF THE NUMBERING PLAN**

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### **Consultation**

**December 2005**

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## **1 INTRODUCTION**

The purpose of this consultation is to review and develop the MCA's approach to numbering in the light of technological and regulatory developments since 2001, and publish a Numbering Plan. As a result of the review, the Numbering Conventions Decision published by the MCA in Nov 2001 will also be updated and is also subject to a consultation published concurrently with this document.

The objective is to provide an open and stable framework for numbering as a foundation for the further development of competition in Malta.

The Review includes:

- the development of the criteria that will apply different number ranges
- the creation of new number ranges for new services
- the number allocation process

The review takes account of the prospective migration of networks to IP-based technologies and the latest work on numbering by expert in the European Communications Committee's Numbering Naming and Addressing Working Group.

## 2 LONG TERM TRENDS AND DEVELOPMENTS

### 2.1 The underlying trends

The underlying changes and trends behind the fundamental changes in electronic communications are:

- **Digitalisation**, which is enabling all communications content to be characterised in a single common form. The effects of digitalisation are enhanced by the development of the Internet Protocol that enables all digital forms of communications to be carried on a common network structure. Together these developments enable all forms of communications and services to be carried on a single network - the multi-service network.
- **Liberalisation**, which has created a dynamic market of network and service providers. This has radically changed the structure of the industry as it has removed the monopoly rights that the established service providers have enjoyed for the past decades. No longer do the Government owned monopolies decide or control which services will be available to users and how they will be provided. New entrants onto the electronic communications market as well as on-line service providers such as Skype and other VOIP operators are now able to provide new services in competition with the existing electronic communications services. The significance of this is that users are beginning to have greatly enhanced choice and that technological developments and cost reductions are starting to be enjoyed by consumers.
- **Technology advances**, which are greatly reducing the costs of electronic communications especially in the higher capacity links that are provided over optical fibre. Costs are falling as fast and faster in some areas than demand is rising with the result that whilst the industry expands in terms of volume its revenue base is either reducing or remaining static. This is leading to new price structures at the retail level such as unlimited call plans, although these new structures have not yet been implemented at the wholesale level. Charges for the distance element in calls are disappearing in the more developed countries.

### 2.2 Changes to cost structures

Developments in technology and huge economies of scale for equipment developed for the customer premises market have resulted in the costs of core or backbone networks dropping substantially. The existing regulatory and commercial models are built on the assumption of an expensive core or backbone network hence the focus on competition in long distance and international calls through carrier selection and the development of services such as freephone. Figure 1 shows the existing cost model in simplified form.

In practice the backbone may be composed of several separate interconnected transit networks.



Figure 1: Existing cost model

Figure 2 shows the new cost model.

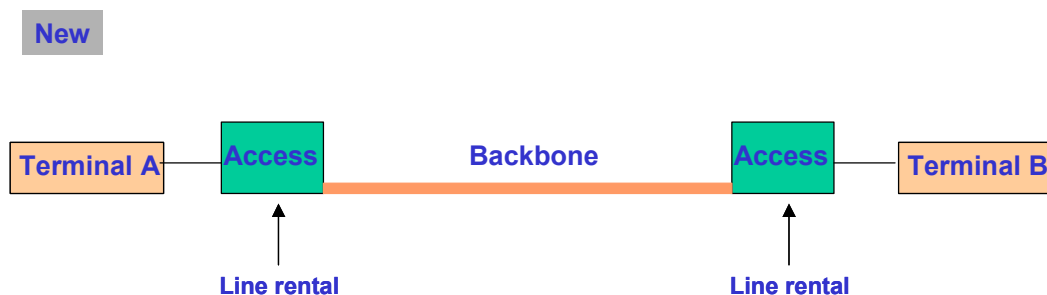


Figure 2: New cost model

The new cost model has applied to mobile networks for some time because of the high costs of radio access and the mobile operators have initially adopting a charging model similar to that proposed here for services on GPRS. The reduction in costs means that a complex interconnection charging model is no longer justified and that a simpler approach should be sought. Notwithstanding these changes, the operators in the GSM Association are exploring some new service-specific charging models for the future development of third generation systems, and so simplification will not necessarily be achieved.

### 2.3 Changes to the retail market and service substitutions

The existing retail market in other countries is changing with call prices dropping and many operators starting to offer flat rate tariffs where unlimited call volumes are offered for a fixed subscription. This generates the risk of arbitrage, and operators would probably benefit in the medium term from having interconnection arrangements that better match the structure of the

retail charges. This change is causing many commentators to say that the days of call charges are disappearing.

There is however, a small number of high price calls remaining including calls to some countries, calls to mobiles and calls to premium rate services.

The usage of services is changing and some newer services are substituting for older services. Some of the main substitutions are:

- Internet transactions replace calls
- Emails replace calls
- Texts (SMS) replace calls
- Mobile calls replace fixed calls
- VoIP (PC-PSTN) calls replace both fixed and mobile (roaming)
- Internet based Instant Messenger and Skype services replace fixed and mobile calls, and texts (SMS).

#### **2.4 Customisation of identifiers**

The increased capability of terminals, especially mobile terminals and software on PCs means that users can create their own customised set of commonly used names and use these names instead of using telephone numbers, SIP<sup>1</sup> addresses or other identifiers directly. The best example is the phonebook in mobile phones where a telephone number is stored under a name of the user's choosing. The users then seldom see the telephone number.

#### **2.5 Convergence**

Convergence is not, or is not yet, the simple process of all different systems converging into a single solution. The process is more complex and has different dimensions:

- In the markets, there is convergence in that different organizations, eg electronic communications service providers, Internet access and service providers, and broadcasters who used to address different market sectors are increasingly providing overlapping services and competing with each other.
- In the technology, the different purpose networks are being replaced by a single multi-purpose network based on the Internet Protocol.

Additionally there is convergence in the presentation of services to users via terminal equipment with PCs and televisions being used for an increasing number of different services such as TV, radio, email and telephony.

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<sup>1</sup> Session Initiation Protocol

However in the commercial area, there is increasing competition in networks between what can be characterized as the telco commercial model and the Internet commercial model. This is illustrated in figure 3.

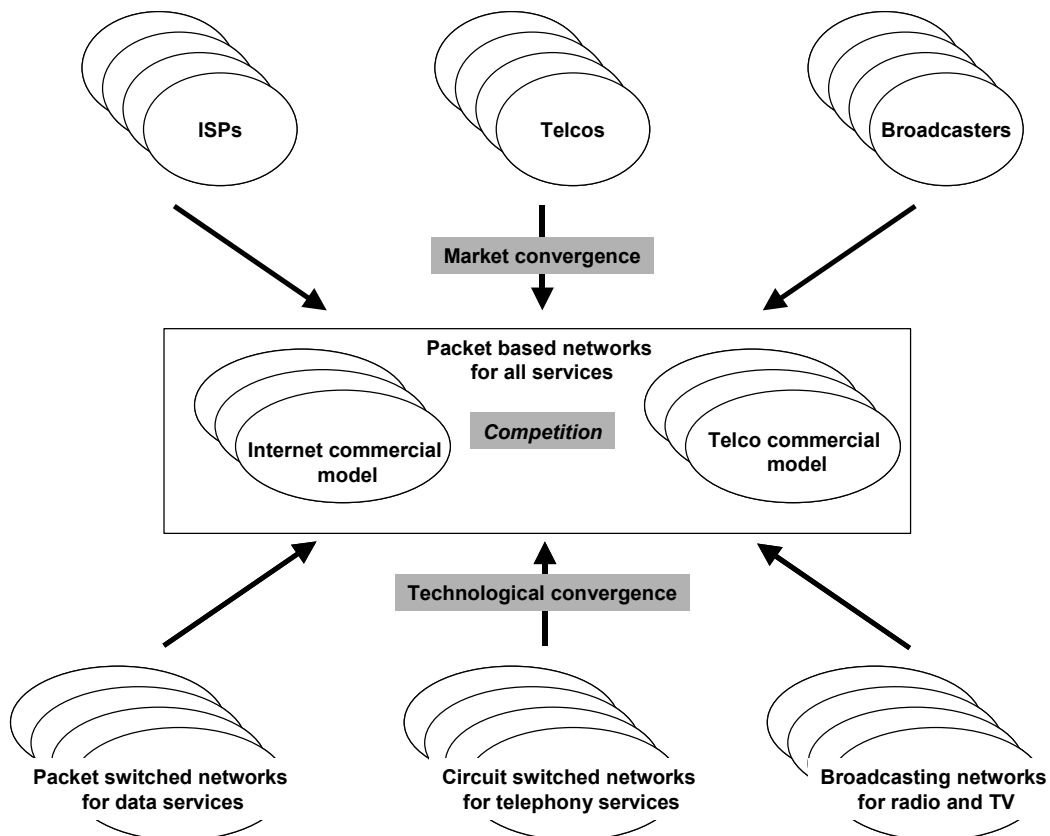


Figure 3: Convergence

It is not clear how this competition will develop. The Internet as an "open" network is architecturally much better suited to the provision of innovative and third party services, but there are concerns that its quality may deteriorate because at present there is over capacity in the backbone as a result of over investment during the dot com boom in 1999-2000. Equally, if electronic communication service providers continue their current approach to NGN developments they may not be well suited to flexible service provision. Nevertheless there are commercial changes starting in the electronic communication service providers world to make their retail tariffs more like the Internet, ie subscription rather than usage based. Thus the process of convergence is not simple and it is not clear whether both the electronic communication services and Internet models will continue in parallel indefinitely or will eventually merge into a single solution.

## 2.6 ENUM

ENUM is a development based on the Internet to facilitate convergence between Internet naming and addressing schemes and telephone numbers.



ENUM is a system for mapping telephone numbers stored in the Domain Name System of the Internet under <cc>.e164.arpa into Uniform Resource Identifiers such as SIP addresses or other identifiers. In "User ENUM" each number is loaded into DNS by its authorized user with user opt-in. In practice user ENUM may be used only for blocks of Direct Dial In numbers as there is insufficient incentive for individual users to load numbers into ENUM.

The IETF (Internet Engineering Task Force) is starting to prepare an extension to ENUM to provide carrier ENUM which will probably be under the same tree as user ENUM but link the number only to a SIP address for the SIP server that is serving the number. Numbers will be entered by the serving operator "en block" rather than individually.

The significance of user ENUM in particular is that numbers that were allocated for use with a given operator will start to be used also for services that are provided by another operator or are self provided. At some stage, the user may wish to discontinue the original service but keep the number for a different service. Thus, numbers may gradually become detached from the service providers that they were originally associated with and be associated with different or multiple service providers. We call this effect and the pressure for it "number detachment".

## **2.7 Fixed - mobile convergence**

Some operators are introducing services that combine fixed and mobile access under the same number. These services are at an early stage and the use of numbers for incoming calls and the tariffs to be applied may change. They may create a demand for a number range with a tariff level somewhere between the levels for fixed and mobile. An alternative that is attractive for users, especially for a calling party, is to use an existing fixed number and for the called party to pay for any extension of the call to their mobile.

## **2.8 Summary of factors that will affect numbering plans**

The following is the list of factors for change that arise out of the sections above:

- Tariff reduction leaving fewer services with high tariffs
- Flat rate calling plans become more common place and inclusion in flat rate tariffs becomes an important issue
- Flat rate reduced tariffs reduce demand for freephone services
- Nomadcity means that it is impossible to restrict where numbers are used within the region of nomadcity
- Voice over the Internet and high roaming charges lead to increased demand for additional numbers for the purpose of reducing charges
- Numbers may become increasingly associated with services for which they were not originally allocated, although this has not started yet in Malta. Thus as ENUM increases pressure for number detachment, the

linkage with the service provider through which the number was allocated will be broken and the number will become more personal.

- Pressures for secondary allocation between operators increase as Internet based operators want to use the facilities of new entrant electronic communications service providers and the numbers allocated to them
- New ranges may be needed for fixed mobile convergence services
- Pressure for number portability between different services increases subject to the tariffs not being too different

**Q1: What comments do you have on this analysis of future trends? Are there other factors that should be taken into account?**

### **3 NUMBERS FOR NEW OPERATORS**

The MCA is receiving requests for numbers and number ranges from potential new entrant operators.

Some operators are requesting whole 6-digit number ranges so that they can give subscribers the same numbers as they have with existing operators, ie only the first two digits which identify the operator have to change. The need for this will reduce when full number portability becomes available by end March 2006.

One factor in the allocation of numbers is that at present networks analyse only 2 digits for routing between operators. This means that unless the length of analysis is to increase only one operator can use each value of the first 2 digits of a number. This issue does not represent an absolute limit, but a factor to take into account. If there are many new entrants, it will not be possible to continue this practice.

For mobile telephony the issues are less clear because the existing operators are in separate ranges, Go Mobile in 79 and Vodafone in 99 and so the MCA is considering which range or ranges to allocate for new mobile operators. Other codes in both the 7x and 9x range are free, eg 73-76 and 93-96 could be used - this has the advantage of not spreading mobile services into yet more ranges. Alternatively there may be an association of x9 with mobile and additional x9 codes should be used such as 59 or 89. Another possibility is to open the 4x or 6x range and allocate 49 or 69 as the 5x and 8x ranges have some association with premium rate and freephone. If more than two new mobile operators enter the market, it will not be possible to continue using x9 codes unless operators share an x9 range.

**Q2: Which number ranges should be used for new operators?**

## **4 PERSONAL NUMBERING SERVICES**

"Personal numbering" refers to services where the routing at the terminating end of a call changes according to the request of the called party and may be adapted automatically in real time to their current circumstances. For example a call to a personal number could be terminated in a fixed terminal but if the call is not answered in a specific time it is diverted to a mobile terminal, or the termination could change automatically at different times of the day, e.g between home, mobile and business.

Personal numbering functions normally relate to incoming calls and the Calling Line Identity sent on outgoing calls may be either the number assigned to the terminal used or the personal number depending on the detailed implementation of the service. The costs of the additional functions and additional call routing required for personal numbering may be borne in theory by the caller or the called party. In some other countries, personal numbers are subject to high tariffs.

The MCA takes the view that the benefit of personal numbering may accrue to either the caller or the called party depending on the circumstances and that it is not reasonable to make a judgement on the corresponding tariff structure. However, the MCA is concerned that subscribers have power over their choice of numbers and does not want to see subscribers starting to use personal numbering as a "personal premium rate number" with profit sharing with the serving operator. This is why the MCA proposes to impose restrictions on operators who use the 2, 3, 7 and 9 ranges from passing revenue to called parties and on the use of premium rate numbers for live conversation, as failure to do so would create scope for users to migrate generally to profit sharing arrangements and devalue the telephone service.

The MCA therefore proposes to allow operators considerable choice in how they provide personal numbering services and in which number range they operate them. The following options will be available:

- Services on existing numbers in the 2, 3, 79 and 99 ranges may have additional "personal numbering" features added to them provided that the termination rates associated with these numbers are unchanged and number portability continues to be supported (except in the 3 range).

To introduce new ranges for new personal numbering services that consist of onward routing the call to existing other services eg fixed or mobile numbers. The use of the ranges 39 and 91 for these services where the termination rate levels would equate to fixed and mobile services respectively. The range 91 is chosen because 9 indicates a high mobile tariff and 71 is used for paging and so the use of 91 leaves the same values of the second digit unused when comparing the 7x and 9x ranges. Services with termination rates at the level for fixed services but without number portability may be introduced in the 39 range. Services with termination rates at the level for mobile services but without number portability may be introduced in the 91 range.

**Q3: What comments do you have on the proposed approach to personal numbering?**

## **5 GOLDEN NUMBERS AND INDIVIDUAL NUMBER ALLOCATION**

Golden numbers are numbers that have economic value arising from the pattern of digits in the number and may include associations with brands or concepts or meanings from the association of digits with letters as occurs on many terminal dial-pads.

Subscribers may wish to acquire golden numbers for various reasons and a number may have considerable value to one subscriber but little or no value to others.

At present there are no formal arrangements for the allocation of golden numbers. No distinction is made in the charging for numbers established under the Electronic Communications (Regulation) Act. Operators provide golden numbers on request and without charge if the numbers are available from the blocks that have been allocated to them.

Golden numbers raise various issues:

- Should individual numbers be made available anywhere in the numbering plans if they are golden, eg should the number 5555 5555 be made available, or should numbers be made available only in operational ranges and in accordance with the purpose of the number range as set out in the number plan?
- Should charges be allowed for golden numbers and should the profit accrue to the operators or to the public through payments to MCA, or both?
- Should a potential subscriber be able to obtain the number that they want on the network operator that they choose? Or should they be constrained by the allocations of blocks between operators for a similar service. For example, should a subscriber be able to obtain the number 9977 5533 on Go Mobile or should they be required to take a subscription with Vodafone and then go through the process of porting the number to Go Mobile?
- Should subscribers be able to acquire numbers from subscribers to whom the numbers have already been allocated? For example should a subscriber be able to conclude a deal with the user of a number such as 9977 5533 and then arrange with the operators for the number to be transferred to them? Such deals would be a form of number trading that is analogous to trading in car registration numbers.

These issues are likely to be of most significance for special tariff numbers that are advertised widely.

The MCA is strongly of the view that number allocations must conform to the plan proposed in this document. Therefore numbers such as 5555 5555 would not be available. Making them available would create considerable confusion for users over tariffs and would impose constraints on the future development of the numbering plan and these constraints could have serious cost implications in the future.

The MCA recognises the value of golden numbers and could facilitate their use and distribution, although it recognises that it is impossible to define which numbers are golden as the associations with numbers may be subjective and may change with fashion.

The MCA considers that all numbers are a national resource and that therefore profits from their distribution and use should accrue to the Maltese population in general whilst allowing operators to cover their costs in the distribution process.

The MCA therefore proposes that if a decision is taken to allow the distribution of golden numbers, this should take place by means of a voluntary market led process. The MCA proposes the following:

- Numbers will continue to be allocated only in blocks through operators. The MCA does not have the resources to allocate numbers directly to end users itself.
- Operators may not charge for existing allocations of golden numbers.
- Operators may charge for new allocations of golden numbers allocated from the blocks allocated to them by the MCA, but they will not be required to do so. Operators will be required to itemise these charges separately and report the charges annually to the MCA and pay a percentage of the revenue collected to the MCA.
- Operators may determine their own form of charging, eg they may use either one-off charges or annual charges but may not increase annual charges by more than the rate of inflation. This is important because numbers, once put into use, may acquire considerable value to the user and without any cap an operator could increase charges substantially.
- Numbers that are required to be portable will remain portable and when ported the operator through which they were allocated will lose the right to any revenue for the golden number.

- It is also debatable whether subscribers should be allowed to trade numbers. In such case subscriber Y could agree to pay subscriber X an amount to be agreed between them for acquiring the number of subscriber X. Subscriber X would then have to arrange with his/her network operator to transfer the number to subscriber Y. Subscriber X would have to pay a charge to be set commercially for releasing the number for use by subscriber Y. Operators would not be required to support such arrangements.

**Q4: How important is the issue of golden numbers? Do you support the measures proposed?**



## **6 ENUM**

ENUM in its basic form will not affect the allocation of numbers.

In Austria a new service has been introduced using generic PSTN-SIP gateways provided by the operators with universal service requirements. Subscribers can obtain an E.164 number from a special range and calls to the number are routed to the gateway with a normal charge for a call to a fixed number and then routed over the Internet to the called party. Subscribers may make their own gateway arrangements for outgoing calls from the Internet to the PSTN. The allocation of numbers to subscribers is handled by the registry responsible for ENUM and ENUM is used for the translation from the E.164 number to a SIP address.

The MCA is not planning at present to promote the development of these services but will consider them on request. The range 39 would be appropriate for these services.

ENUM has also raised questions as to whether the operators who are serving subscribers on numbers at present would be required to authenticate the use of these numbers by subscribers so that the numbers may be entered into ENUM. The MCA is not planning to impose such a requirement, as other means of authentication are possible. Such authentication would be voluntary.

## **7 NUMBER DETACHMENT**

MCA is aware of the importance of numbers to many subscribers and that developments such as ENUM may result in numbers that have been allocated for one service being used additionally for other services. The use of mobile numbers for telephony SMS and MMS is an example. In the case of VoIP, ENUM would enable an existing PSTN number to be used additionally for a VoIP service what could be self provided or provided through a VoIP service provider.

If this situation develops further then a point may be reached where the additional uses become the main uses, and the service for which the number was originally allocated would no longer be needed.

The MCA considers that it is too early to address these issues with specific arrangements but wishes operators to be aware that in assessing these potential developments it will give priority to the interests of the users and that these developments could lead to a situation where the approach to numbering has to change more radically.

**Q5: What comments do you have on ENUM and the long term issue of potential number detachment? What, if any, measures should the MCA consider taking in the foreseeable future?**

## **8 HARMONISED EUROPEAN SHORT CODES**

The Numbering Naming and Addressing Working Group of the European Communications Committee is considering the establishment of special services using the short code 116 followed by one to three digits.

The MCA has reserved the number range starting 116 for this purpose and intends to follow the developments in ECC NNA and COCOM.

## 9 NUMBERS FOR DATA TERMINALS

There may be a growth in mobile data-only terminals, eg terminals that use only SMS, used for access to the Internet or for data applications of a closed-user nature such as measurement and control. The demand for such terminals could be high.

MCA considers that where data-only terminals are used for applications that do not involve call termination and only involve communications of a closed user group nature, then it would be preferable not to use numbers in the main mobile ranges. The MCA also notes that in this case tariff transparency is not essential and that the services would not qualify as PATS and so number portability is also not essential.

The MCA proposes to open the 97 range for these applications. This ranges will be shared and open to new entrants and not exclusive to Go Mobile and Vodafone respectively because there are no issues of tariff transparency or branding since it will be used for closed machine driven applications. If expansion is needed it could be in the 77 range.

**Q6: How important and widespread do you think data-only applications will be? Do you support the measures proposed?**

## 10 SHORT CODES

The use of short codes by different operators is currently uncoordinated. As new companies enter the market this will become increasingly confusing for users and therefore the MCA wishes to move towards a degree of harmonisation for short codes whilst not disrupting existing usage.

The approach taken in many countries is to distinguish three types of short code:

- Codes that are the same in each network and cause calls to be routed to a single destination such as codes for the emergency services.
- Codes that have the same value for similar services but where the services are provided "on-net" and not necessarily interconnected
- Codes that are completely uncoordinated and are served on-net.

The MCA proposes to move towards the following arrangements:

- 100-119: Harmonised codes – either to similar internal services or external services
- 120-149: Operator specific internal services
- 150-159: External Government services
- 160-169: Reserved for future use
- 170-179: External Social support services
- 180-189: Reserved for future use
- 190-199: External services mainly of public interest

The details are shown in Figure 4.

The MCA proposes that all new PATS market entrants will use codes in accordance with this scheme and that existing PATS operators will provide access to services in accordance with the codes by 31 December 2006. However, existing operators are not required to withdraw existing codes - both new and old values can be used in parallel.

Where a requirement is specified for a related geographic number, or for a number that is on-net only, all PATS operators should support access with a number of the form XY00 0ABC where XY is the network code. These

arrangements will ensure that the service can be reached by callers from outside Malta and by users of non-PATS services.

Non-PATS operators are not required to provide services using short codes but if they do, any service provided should follow the requirements set out in the table.

| Code    | Use  | Interconnected or on-net | Related geographic number                                   | Parallel operation  |
|---------|--|--------------------------|---|---|
| 100     | Operator helpline                            | On-net                   | Yes   | 21212121<br>Maltacom<br>123/146 Go<br>Mobile<br>247<br>Vodafone |
| 110     | Not to be used                               |                          |   |   |
| 111     | Not to be used                               |                          |   |   |
| 112     | Emergency access                             | Interconnected           | Yes, so it is callable by VoIP operators in other countries | 199   |
| 113     | Not to be used                               |                          |   |   |
| 114     | Not to be used                               |                          |   |   |
| 115x    | International directory services             | Interconnected           | No  |   |
| 116     | Reserved for Harmonised European Short Codes | Interconnected           | Yes   |   |
| 117     | Fault reporting                              | On-net fixed only        | Yes   |   |
| 118x    | Directory services                           | On-net                   | No  |   |
| 119     | Voice message retrieval                      | On-net                   | N/a   | 121 Go<br>Mobile<br>141<br>Maltacom<br>909<br>Vodafone          |
| 120-149 | Operator specific services                   | On-net                   | No  |   |
| 150     | Star services                                | On-net                   | No  |   |
| 151     | Drugs etc support                            | Interconnected           | Yes   |   |

|         |  |                |     |     |
|---------|--|----------------|-----|-----|
| 152     | Reserved for Government                        | Interconnected | Yes |     |
| 153     | Government info services                       | Interconnected | Yes |     |
| 154     | Reserved for Government                        | Interconnected | Yes |     |
| 155     | Wake up call (to be moved to network specific) | On-net         | No  |     |
| 156     | Reserved for Government                        | Interconnected | Yes |     |
| 157     | Reserved for Government                        | Interconnected | Yes |     |
| 158     | Reserved for Government                        | Interconnected | Yes |     |
| 159     | Social policy info                             | Interconnected | Yes |     |
| 160-169 | Reserved                                       |                |     |     |
| 170-178 | Social support services                        |                |     |     |
| 179     | Abuse support line                             | Interconnected | No  |     |
| 180-189 | Reserved                                       |                |     |     |
| 190     | Not to be used                                 |                |     |     |
| 191     | Police   | Interconnected | No  |     |
| 192     | Not to be used                                 |                |     |     |
| 193     | Available                                      |                |     |     |
| 194     | Available                                      |                |     |     |
| 195     | Timecheck                                      | On-net         | N/a |     |
| 196     | Ambulance                                      | Interconnected | No  |     |
| 197     | Available                                      |                |     |     |
| 198     | Not to be used                                 |                |     |     |
| 199     | Emergency                                      | Interconnected | Yes | 112 |

Figure 4: Proposed short code plan

Operators should not introduce any new short codes in other ranges.

If new short code applications are introduced and become important for subscribers, then it is desirable that they are used on a harmonised basis across all networks. The MCA therefore proposes to require all operators to notify MCA of the adoption of new network specific codes so that the MCA can review the need for new harmonised codes to be agreed. This arrangement need not delay introduction of network specific codes since they can always continue to operate in parallel with harmonised codes if the latter are adopted later.

**Q7: What comments do you have on the proposed approach to short codes? How useful will the proposed harmonisation of the more common codes be for users?**



## **11 NUMBER CHARGING**

Numbers are currently charged in accordance with Schedule 11 Part B of the Electronic Communications (Regulation) Act (CAP. 399).

- Geographic and mobile numbers are charged per annum, at Lm 100 per block of 10,000 allocated and 15c per used number.
- Carrier selection code are charged at Lm 1000 per annum.

The MCA will be proposing to Government changes in the current number charges in the light of the introduction of number portability, the entry into the market of new operators and numbers from other ranges allocated to service providers.

Interested parties are invited to provide input on the matter.

## 12 THE CURRENT NUMBERING PLAN

Figure 4 gives a high level view of the current numbering plan (some details are omitted). One of the main issues in organising a numbering plan is to ensure that there is a reasonable level of tariff transparency in the numbers, so that callers can obtain at least an indication of what they will have to pay to call a number. For this reason, the tariff levels are also indicated.

| Range              | Detail  | Tariff              |
|--------------------|---|---------------------|
| 0 - Access codes   | 00 - International access<br>05 - Number portability codes                                    | Not relevant        |
| 1 - Other codes    | 10 - Carrier selection codes<br>1x - Short codes + Network specific services                  | Mostly not relevant |
| 2 - Fixed PATS     | 21 - Maltacom<br>22,23 - Fixed DDI<br>24 - Maltatel (under discussion)<br>25 - Fixed DDI      | Low                 |
| 3 - Fixed Non-PATS | 310 - Hello (Melita Cable)<br>321 - Maltatel (not yet functional)<br>345 - I Phone (Maltacom) | Low                 |
| 4 - Unallocated    | There is some short term use by Go Mobile but without full connectivity                       |                     |
| 5 - Premium rate   | 5004 - Maltacom<br>507 - Go Mobile (SMS)<br>509 - Vodaphone (SMS)                             | High                |
| 6 - Unused         |   |                     |
| 7 - Mobile         | 71 - Paging<br>72 - Go DDI<br>79 - Go Mobile  | High                |
| 8 - Special tariff | 800 - Freephone   | Zero                |
| 9 - Mobile         | 92 - Vodafone DDI<br>99 - Vodafone  | High                |

Figure 5: Current numbering plan

The main issues and changes that need to be considered are:

- Allocations for new fixed operators
- PATS/non-PATS distinctions
- Allocations for new mobile operators
- Allocations for operators who use new wireless technologies to provide access to subscribers, eg operators using WiMax
- Further development of freephone and premium rate services
- Allocations for personal numbering and the allocation method to be used
- Criteria to be associated with each number range
- More detailed planning and organisation of short codes
- Formalisation of the use of Network Specific Codes
- The allocation of valuable "golden" numbers
- Secondary trading and sub-allocation
- Nomadicity
- Portability
- Charging
- Long term developments eg numbers without electronic communications services, range for ENUM, number detachment

## **13 THE 2 RANGE FOR FIXED "PATS" OPERATORS**

### **13.1 Current use**

The "2" number range is used currently for fixed services that qualify under the current European framework as providers of Publicly Available Telephone Services. Allocations are made in blocks of 10,000 numbers.

The range 21 is used with 43% of blocks allocated by Maltacom for individual subscriber numbers and the unused blocks are reserved for future use by Maltacom.

The range 24 is also used for individual subscriber numbers. At present 2% of blocks are allocated to Maltatel and further allocations are under discussion.

The ranges 22, 23 and 25 are used for DDI numbers and Maltacom at present has allocations of 30%, 69% and 50% of the blocks in these ranges. The distinctions between DDI and individual numbers were based in the past on different switches used by Maltacom but it should not be necessary to continue these distinctions in the future after the upgrade of the Maltacom network. These distinctions will not be needed for new entrant operators.

There is some advantage in keeping operators in different ranges in terms of the routing of incoming international calls and the MCA proposes to continue this practice for the first few new allocations but it will not be possible to continue it indefinitely.

### **13.2 Future development**

The MCA proposes to develop this range further as follows:

- Numbers blocks in the range 21 will be allocated only to Maltacom in the short to medium term.
- Numbers blocks in the DDI range 23 will be allocated only to Maltacom in the short to medium term. All new DDI allocations to Maltacom will be in this range.
- New number blocks will not be allocated in the DDI ranges 22, and 25 in the short to medium term unless Maltacom runs out of DDI space in the 23 range.
- Numbers blocks in the ranges 20, 24, 26, 27, 28 and 29 will be allocated to new entrants for both individual subscribers and DDI. Allocations are in progress for Maltatel in the 24 range and an application has been received for the 27 range.

### **13.3 Allocation method**

The MCA will allocate numbers in blocks of 10,000 in accordance with Schedule 11 Part B of the Electronic Communications (Regulation) Act (CAP. 399). Initially allocations to different operators will be made in different ranges but sharing of ranges may become necessary.

In the past "reservations" have been promised to some new entrants to give them the option to have blocks allocated throughout a range defined by the leading two or three digits. The MCA intends to discontinue this practice but for the short to medium term will space out allocations of 10,000 number blocks such that only one operator has blocks in a range defined by the leading three digits eg 2xy. The reason for this is to provide a clearer procedure with respect to number charging.

### **13.4 Criteria for the range**

The MCA proposes the following criteria:

- The terminating rate associated with all numbers in this range should not exceed the mean of the termination rates specified by the MCA for Fixed operators with Significant Market Power in the market for call termination on their individual public telephone networks provided at a fixed location by more than 10% to ensure an adequate level of tariff transparency.
- There is no geographical structuring of the range, although operators may choose to use their own structure within their own allocations.
- Operators are encouraged to provide location portability but are not required to do so.
- All numbers in the 2 range are required to be portable between operators, provided that the numbers are still use for the purpose for which they were allocated, so that DDI numbers and individual numbers do not become mixed up. When a number is ported there should be no constraint on the location where the recipient operator serves the subscriber.
- Operators must provide an interconnection point in Malta to receive calls. Provided that this is done, numbers may be allocated to subscribers who do not have an address in Malta. In this case the calls would be delivered to the number holder by a means determined by the operator.
- Subscribers may use the numbers with a nomadicity feature to receive calls at any location inside or outside Malta and may also use the number as a CLI when they make calls in such circumstances.

- The location of the network terminating point shall be provided on request for the support of location information to be associated with calls to the emergency services.
- Operators shall not share revenue with their subscribers.
- Operators shall not sub-allocate numbers to other operators.
- Operators may allocate DDI numbers to subscribers for the purpose of supporting incoming calls on services such as VoIP services, which are run from behind the network termination point and so do not have any interconnection rights.
- Operators are required to support calls to the Maltese emergency services when the caller is currently located within Malta.
- Operators are required to interconnect on request to receive calls so that other operators can terminate calls to numbers in this range and meet their connectivity obligations.
- Operators are required to provide connectivity to all other numbers (excluding network specific numbers) in Malta.

## **14 THE 3 RANGE FOR "NON-PATS" OPERATORS**

This range was opened recently for providers of services that do not qualify as PATS. The main difference is that numbers in this range are not subject to number portability. The range was opened to accommodate VoIP providers, especially ones to provide services over the Internet, but it is not intended to be limited to VoIP technology but to be technologically neutral. In terms of tariffs, calls to the range are intended to be no more expensive than calls to the 2 range.

### **14.1 Current use**

At present there are four blocks of 10,000 numbers allocated and three sub-ranges reserved, namely 310, 321 and 345.

### **14.2 Future development**

The MCA proposes to develop this range further as follows:

- Numbers blocks in the ranges 30-37 will be allocated for non-PATS services. These allocations will be chosen by the MCA and spaced out to allow for expansion using contiguous allocations.
- Numbers blocks in the range 39 will be allocated for personal numbering services and the range 38 will be reserved for future expansion of such services. These ranges are currently not subject to number charging.
- Numbers blocks in the range 39 range may also be allocated for services based on ENUM (see section 6) but the MCA has not yet decided to allow the introduction of such services which would require the provision of generic gateways.

### **14.3 Allocation method**

The MCA will allocate numbers in blocks of 10,000 from the ranges 30-37 in accordance with Schedule 11 Part B of the Electronic Communications (Regulation) Act (CAP. 399). Initially allocations to different operators will be made in different ranges but sharing of ranges may become necessary.

In the past "reservations" have been promised to some new entrants to give them the option to have blocks allocated throughout a range defined by the leading two or three digits. The MCA intends to discontinue this practice but for the short to medium term will space out allocations of 10,000 number blocks such that only one operator has blocks in a range defined by the leading three digits eg 3xy. The reason for this is to provide a clearer procedure with respect to number charging.

#### **14.4 Criteria for the range**

The MCA proposes the following criteria:

- The terminating rate associated with all numbers in this range should not exceed the mean of the termination rates specified by the MCA for PATS fixed operators with Significant Market Power in call termination by more than 10% to ensure an adequate level of tariff transparency.
- There is no geographical structuring of the range.
- Operators are encouraged to provide location portability but are not required to do so.
- There is no requirement for number portability.
- Operators must provide an interconnection point in Malta to receive calls. Provided that this is done, numbers may be allocated to subscribers who do not have an address in Malta. In this case the calls from the other public network operators in Malta and overseas would be received at the interconnection point in Malta and then delivered to the number holder by a means determined by the operator.
- Subscribers may use the numbers to make calls from and receive calls at any location inside or outside Malta.
- Operators shall not share revenue with their subscribers.
- Operators shall not sub-allocate numbers to other operators.
- Operators are not required to support calls to emergency services when the caller is currently located within Malta but must ensure that subscribers are aware of any limitations in the ability to make calls to emergency services.
- Operators are required to interconnect on request to receive calls so that other operators can terminate calls to numbers in this range and meet their connectivity obligations.
- Operators are not required to provide connectivity to all other numbers in Malta.

#### **14.5 Migration between PATS and non-PATS**



In applying the distinction between PATS and non-PATS services to numbering, account need to be taken of the fact that an operator can run both PATS and non-PATS services and can upgrade a non-PATS service so that it becomes a PATS.

In the absence of any over-riding requirement from the EU, the MCA proposes to apply these distinctions to the number ranges as follows:

- Services provided using the 2 range will be restricted to those services that qualify as PATS.
- An operator that provides PATS in the 2 range may also provide non-PATS services in the 3 range. These numbers in the 3 range will not be subject to Number Portability.
- An operator that provides non-PATS in the 3 range may use the same network with the same features to provide services in the 2 range provided that the service meets the requirements for PATS. The numbers in the 2 range will be subject to number portability, but the ones in the 3 range will continue not to be subject to number portability even if they are provided with facilities for calling emergency services.

## **15 THE 4 RANGE**

### **15.1 Current use**

The 4 range is currently used for a small number of miscellaneous network specific services.

### **15.2 Future development**

The MCA proposes that the service that are currently using the 4 range should be gradually migrated to other ranges to free the range for future expansion.

There is also the possibility that 49 will be used for additional mobile services.

A possibility also exists to allocate sub-ranges within this range for operators opting for termination rates falling outside those specified in the 'criteria for the range' sections of the 2,3, 7 & 9 ranges.

### **15.3 Allocation method**

Not relevant.

### **15.4 Criteria for the range**

Not relevant.

## **16 THE 5 RANGE**

### **16.1 Current use**

The sub-range 50 is currently used for premium rate services and SMS special codes.

The 500 range is used for premium rate voice services with 50043 and 50049 being used by Maltacom.

Other values in the 50X range are used for SMS and MMS services

501 is used for M-Government and this use will remain unchanged

506 is shared by mobile operators for premium rate SMS services that can be reached from any mobile network

507 is used by Go Mobile for premium rate SMS services that are not interconnected

509 is used by Vodafone for premium rate SMS services that are not interconnected

### **16.2 Future development**

The MCA proposes to develop the 500 range for premium rate services with different sub-ranges for different service types so that call barring can be applied differently to different sub-ranges. The development of premium rate services is proposed in another consultation document. The MCA proposes the following sub-ranges and service categories:

5000 - Reserved for a new category

5001 - Business and factual information services

5002 - Other information services including information of an entertainment character

5003 - Games, competitions and phone-ins

5004 - The existing uses by Maltacom will be frozen, ie it can continue to be used but no new allocations will be made otherwise it will undermine the use of different sub-ranges for different types of service

5005 - Product sales and related services, ie the sale of products and services that are supplied by means other than the call to the premium rate number. This would include ring tones.

5006 - Donations to charity

5007 - Reserved for a new category

5008 - Reserved for a new category

5009- Adult and gambling

This proposed categorisation is the subject of a separate consultation on special services including premium rate.

502, 503, 504, 505, 508 series will be reserved for expansion.

Each operator will need block of 100 numbers under each range.

The ranges 51-59 will be reserved for expansion.

There is a possibility that 59 will be used for additional mobile services.

### **16.3 Allocation method**

Numbers in the 500 range will be allocated in blocks of 100 to operators.

The 50 range will be allocated in blocks of 1,000 to operators

The MCA will control all new allocations of numbers in the 500 range.

### **16.4 Criteria for the range**

The MCA proposes the following criteria:

- The revenue sharing arrangements proposed are described in the Consultation document on Special Tariff Services.
- All numbers in the 50 range, including 5004, are required to be portable between all operators fixed and mobile. Numbers in sub-ranges 501, 505, 506, 507 are excluded from this requirement.
- Operators must provide an interconnection point in Malta to receive calls. Provided that this is done, numbers may be allocated to subscribers who do not have an address in Malta. In this case the calls would be delivered to the number holder by a means determined by the operator.
- Operators may share revenue with their subscribers (ie with service providers).
- Operators shall not sub-allocate numbers to other operators.
- Operators are required to interconnect on request to receive calls so that other operators can terminate calls to numbers in this range and meet their connectivity obligations.

## **17 THE 6 RANGE**

### **17.1 Current use**

The 6 range is currently unused.

### **17.2 Future development**

There is a possibility that 69 will be used for additional mobile services.

A possibility also exists to allocate sub-ranges within this range for operators opting for termination rates falling outside those specified in the 'criteria for the range' sections of the 2,3, 7 & 9 ranges.

### **17.3 Allocation method**

To be determined later.

### **17.4 Criteria for the range**

To be determined later.

## **18 THE 7 RANGE**

### **18.1 Current use**

The 7 range is currently used as follows:

The 7117 sub-range is used for paging

The 721 sub-range has been allocated to Go Mobile for DDI

The 79 sub-range is used for mobile services by Go Mobile

### **18.2 Future development**

No further allocations are planned in 71 and 72.

The ranges 70, 73-76 and 78 will not be allocated in the foreseeable future unless they are used for additional mobile services..

The range 77 will be available for "closed user group" mobile data-only applications, eg terminals that function only with SMS.

### **18.3 Allocation method**

The 77 and 79 ranges will be allocated in 10k blocks.

### **18.4 Criteria for the range**

The MCA proposes the following criteria for the 77 and 79 sub-ranges:

- The terminating rate associated with all numbers in this range should not exceed the mean of the termination rates specified by the MCA for mobile operators with Significant Market Power in the market for wholesale voice call termination on their individual mobile networks by more than 10% to ensure an adequate level of tariff transparency.
- All numbers in the 79 range are required to be portable with other mobile operators.
- Subscribers may use the numbers to make and receive calls from any location inside or outside Malta if their service provides roaming.
- Numbers should be allocated only to mobile terminals or to terminals that use an air interface of a type also used by mobile terminals.
- Operators shall not share revenue with their subscribers.
- Operators shall not sub-allocate numbers to other operators.
- Operators are required to support calls to emergency services when the caller is currently located within Malta. This applies to the 79 range only.

## **19 THE 8 RANGE**

### **19.1 Current use**

The range 800 is used for freephone services.

8006 is allocated to both mobile operators  
8007 is allocated to Maltacom.

### **19.2 Future development**

The range 800 will be developed further for freephone services.

The ranges 801-809 will be reserved for the future expansion of the freephone services.

The ranges 81-89 will be reserved for future applications.

### **19.3 Allocation method**

The 800 range will be allocated in 10k number blocks.

### **19.4 Criteria for the range**

The MCA proposes the following criteria for the 800 sub-range:

- The retail tariff for calling an 800 number should be zero from all terminals with numbers in the 2 and 3 ranges.
- The retail tariff for calling an 800 number should be no more than the tariff for a mobile call to a terminal in the 2 range from all terminals with numbers in the 79 and 99 ranges. If a retail tariff is charged then the caller should be played a warning to say that the call is chargeable and should not be charged for the duration of this warning.
- All terminals with numbers in the 2, 79, 89 ranges that have a voice call capability should be able to call all numbers in the 800 series.
- All numbers in the 800 range are required to be portable between operators who serve freephone numbers.
- Subscribers may use the numbers to make and receive calls from any location inside or outside Malta if their service provides roaming.
- Call to freephone numbers may be delivered to either fixed or mobile terminals.
- Operators shall not sub-allocate numbers to other operators.

## **20 THE 9 RANGE**

### **20.1 Current use**

The 9 range is currently used as follows:

Part of the 921 sub-range has been allocated to Vodafone for DDI

The 99 sub-range is used for mobile services by Vodafone

### **20.2 Future development**

The ranges 90, 93-96 and 98 will not be allocated in the foreseeable future unless they are used for additional mobile services or personal numbers.

Numbers blocks in the range 91 will be allocated for personal numbering services with termination rates similar to those for mobile services.

Numbers blocks in the range 97 will be allocated for "closed user group" mobile data-only applications, eg terminals that function only with SMS.

### **20.3 Allocation method**

The 91, 97 and 99 ranges will be allocated in 10k blocks.

### **20.4 Criteria for the range**

The MCA proposes the following criteria for the 91, 97 and 99 sub-ranges:

- The terminating rate associated with all numbers in this range should not exceed the mean of the termination rates specified by the MCA for mobile operators with Significant Market Power in the market for wholesale voice call termination on their individual mobile networks by more than 10% to ensure an adequate level of tariff transparency.
- All numbers in the 99 range are required to be portable with other mobile operators.
- Subscribers may use the numbers to make and receive calls from any location inside or outside Malta if their service provides roaming.
- Numbers should be allocated only to mobile terminals or to terminals that use an air interface of a type also used by mobile terminals.
- Operators shall not share revenue with their subscribers.
- Operators shall not sub-allocate numbers to other operators.



- Operators are required to support calls to emergency services when the caller is currently located within Malta. This applies to the 99 range only.

**Q8: Have you any further comments on the proposed development of the numbering plan and the conditions associated with each range?**

**Q9: Are there any other related issues for the MCA to take into account?**

## 21 SUMMARY OF THE MAIN NUMBER RANGES

Figure 6 gives a high level view of the revised numbering plan proposed in this document. New number ranges and sub-ranges are shown in italics. The column on number charging states the current position and may be changed in the future.

| Range                          | Detail                               | Terminating rate | Exclusive or shared | Allocations        | PATS | Portable | Emergency access | Revenue sharing | Nomadicity or Roaming | Connectivity | Number charging |
|--------------------------------|--------------------------------------|------------------|---------------------|--------------------|------|----------|------------------|-----------------|-----------------------|--------------|-----------------|
| 0 - Access codes               | 00 - International access            |                  |                     |                    |      |          |                  |                 |                       |              |                 |
|                                | 05 - Number portability codes        |                  |                     |                    |      |          |                  |                 |                       |              |                 |
| 1 - Other codes                | 100 - Operators services             |                  |                     |                    |      |          |                  |                 |                       |              |                 |
|                                | 10 - Carrier selection codes         |                  |                     |                    |      |          |                  |                 |                       |              |                 |
|                                | 1xx - Short codes                    |                  |                     |                    |      |          |                  |                 |                       |              |                 |
| 2 - Fixed PATS                 | 20 - Free for new entrants           | Low              | Shared              | 10k blocks         | PATS | Yes      | Yes              | No              | Yes                   | Full         | Yes             |
|                                | 21 - Maltacom                        | Low              | Maltacom only       | W hole band        | PATS | Yes      | Yes              | No              | Yes                   | Full         | Yes             |
|                                | 22 - Maltacom DDI - frozen           | Low              | Maltacom only       | W hole band        | PATS | Yes      | Yes              | No              | Yes                   | Full         | Yes             |
|                                | 23 - Maltacom DDI                    | Low              | Maltacom only       | W hole band        | PATS | Yes      | Yes              | No              | Yes                   | Full         | Yes             |
|                                | 24 - Maltatel                        | Low              | Under discussion    | 10k blocks         | PATS | Yes      | Yes              | No              | Yes                   | Full         | Yes             |
|                                | 25 - Maltacom DDI - frozen           | Low              | Maltacom only       | W hole band        | PATS | Yes      | Yes              | No              | Yes                   | Full         | Yes             |
|                                | 26 - Free for new entrants           | Low              | Shared              | 10k blocks         | PATS | Yes      | Yes              | No              | Yes                   | Full         | Yes             |
|                                | 27 - Free for new entrants           | Low              | Shared              | 10k blocks         | PATS | Yes      | Yes              | No              | Yes                   | Full         | Yes             |
|                                | 28 - Free for new entrants           | Low              | Shared              | 10k blocks         | PATS | Yes      | Yes              | No              | Yes                   | Full         | Yes             |
|                                | 29 - Free for new entrants           | Low              | Shared              | 10k blocks         | PATS | Yes      | Yes              | No              | Yes                   | N/a          | Yes             |
| 3 - Fixed non-PATS             | 30 - 37 Any low tariff service       | Low              | Shared              | 10k blocks         | No   | No       | No               | No              | Yes                   | Partial      | Yes             |
|                                | 38 - Expansion of personal numbering | Low              | Shared              | 10k blocks         | No   | No       | No               | No              | Yes                   | N/a          | No              |
|                                | 39 - Personal numbering incl ENUM    | Low              | Shared              | 10k blocks         | No   | No       | No               | No              | Yes                   | N/a          | No              |
| 4 - Spare for future expansion |                                      |                  |                     |                    |      |          |                  |                 |                       |              |                 |
| 5 - Premium rate               | 5000 - Unused                        | Very             | Shared              | 100 blocks         | No   | Yes      |                  | Yes             |                       | Full         | No              |
|                                | 5001 - Business                      | Very             | Shared              | 100 blocks         | No   | Yes      |                  | Yes             |                       | Full         | No              |
|                                | 5002 - Entertainment                 | Very             | Shared              | 100 blocks         | No   | Yes      |                  | Yes             |                       | Full         | No              |
|                                | 5003 - Games, phone ins              | Very             | Shared              | 100 blocks         | No   | Yes      |                  | Yes             |                       | Full         | No              |
|                                | 5004 - Existing services             | Very high        | Maltacom            | No new allocations | No   | No       |                  | Yes             |                       | Full         | No              |
|                                | 5005 - Product sales                 | Very             | Shared              | 100 blocks         | No   | Yes      |                  | Yes             |                       | Full         | No              |
|                                | 5006 - Charity                       | Very             | Shared              | 100 blocks         | No   | Yes      |                  | Yes             |                       | Full         | No              |
|                                | 5007 - Unused                        | Very             | Shared              | 100 blocks         | No   | Yes      |                  | Yes             |                       | Full         | No              |
|                                | 5008 - Unused                        | Very             | Shared              | 100 blocks         | No   | Yes      |                  | Yes             |                       | Full         | No              |
|                                | 5009 - Adult and gambling            | Very             | Shared              | 100 blocks         | No   | Yes      |                  | Yes             |                       | Full         | No              |
|                                | 501 - M Government (SMS/MMS)         | Low              | Government only     | W hole range       | No   | No       |                  | No              |                       | Full         | No              |
|                                | 502 - Unused                         | Very             | Shared              | 1k blocks          | No   | Yes      |                  | Yes             |                       | Full         | No              |
|                                | 503 - Unused                         | Very             | Shared              | 1k blocks          | No   | Yes      |                  | Yes             |                       | Full         | No              |
|                                | 504 - Unused                         | Very             | Shared              | 1k blocks          | No   | Yes      |                  | Yes             |                       | Full         | No              |
|                                | 505 - Unused                         | Very             | Shared              | 1k blocks          | No   | No       |                  | Yes             |                       | Full         | No              |
|                                | 506 - Shared                         | Very             | Shared              | 1k blocks          | No   | Yes      |                  | Yes             |                       | Full         | No              |
|                                | 507 - SMS/MMS                        | Very             | Go Mobile           | 1k blocks          | No   | No       |                  | Yes             |                       | Full         | No              |
|                                | 508 - Unused                         | Very             | Shared              | 1k blocks          | No   | Yes      |                  | Yes             |                       | Full         | No              |
|                                | 509 - SMS/MMS                        | Very             | Vodafone            | 1k blocks          | No   | No       |                  | Yes             |                       | Full         | No              |
| 51-59 - Unused                 | To be decided                        |                  |                     |                    |      |          |                  |                 |                       |              |                 |

| Range                          | Detail                        | Terminating rate | Exclusive or shared | Allocations | PATS | Portable | Emergency access | Revenue sharing | Nomadicity or Roaming | Connectivity | Number charging |
|--------------------------------|-------------------------------|------------------|---------------------|-------------|------|----------|------------------|-----------------|-----------------------|--------------|-----------------|
| 6 - Spare for future expansion |                               |                  |                     |             |      |          |                  |                 |                       |              |                 |
| 7 - Mobile                     | 70 - Unused                   | To be decide     |                     |             |      |          |                  |                 |                       |              |                 |
|                                | 71 - Paging                   | Medium           | Maltacom            | 100k block  | No   | No       | No               | No              | Yes                   | N/a          | No              |
|                                | 72 - Go DDI                   | High             | Go Mobile           | 10k blocks  | PATS | Yes      | Yes              | No              | Yes                   | Full         | Yes             |
|                                | 73-76 - Unused                | To be decide     |                     |             |      |          |                  |                 |                       |              |                 |
|                                | 77 - Mobile data              | High             | Shared              | 10k blocks  | No   | No       | No               | No              | Yes                   | Partial      | Yes             |
|                                | 78 - Mobile expansion         | High             | To be decided       | 100k blocks | PATS | Yes      | Yes              | No              | Yes                   | Full         | Yes             |
|                                | 79 - Go Mobile                | High             | Go Mobile           | Whole band  | PATS | Yes      | Yes              | No              | Yes                   | Full         | Yes             |
| 8 - Special tariff             | 800 - Freephone               | Negative         | Shared              | 10k blocks  | No   | Yes      |                  |                 |                       | N/a          | No              |
|                                | 801 - 809 Freephone expansion | Negative         | Shared              | 10k blocks  | No   | Yes      |                  |                 |                       | N/a          | No              |
|                                | 82-89 - Unused                | To be decide     |                     |             |      |          |                  |                 |                       |              |                 |
| 9 - Mobile                     | 90 - Unused                   | To be decide     |                     |             |      |          |                  |                 |                       |              |                 |
|                                | 91 - Personal numbering       | High             | Shares              | 10k blocks  | No   | No       | No               | No              | Yes                   | N/a          | No              |
|                                | 92 - Vodafone DDI             | High             | Vodafone            | 10k blocks  | PATS | Yes      | Yes              | No              | Yes                   | Full         | Yes             |
|                                | 93-96 - Unused                | To be decide     |                     |             |      |          |                  |                 |                       |              |                 |
|                                | 97 - Mobile data              | High             | Shared              | 10k blocks  | No   | No       | No               | No              | Yes                   | Partial      | Yes             |
|                                | 98 - Mobile expansion         | High             | To be decided       | 100k blocks | PATS | Yes      | Yes              | No              | Yes                   | Full         | Yes             |
|                                | 99 - Vodafone                 | High             | Vodafone            | Whole band  | PATS | Yes      | Yes              | No              | Yes                   | Full         | Yes             |

Figure 6: Revised numbering plan

## **22 SUMMARY OF THE CONSULTATION QUESTIONS**

**Q1: What comments do you have on this analysis of future trends? Are there other factors to take into account?**

**Q2: Which number ranges should be used for new operators?**

**Q3: What comments do you have on the proposed approach to personal numbering?**

**Q4: How important is the issue of golden numbers? Do you support the measures proposed?**

**Q5: What comments do you have on ENUM and the long term issue of potential number detachment? What, if any, measures should the MCA consider taking in the foreseeable future?**

**Q6: How important and widespread do you think data-only applications will be? Do you support the measures proposed?**

**Q7: What comments do you have on the proposed approach to short codes? How useful will the proposed harmonisation of the more common codes be for users?**

**Q8: Have you any further comments on the proposed development of the numbering plan and the conditions associated with each range?**

**Q9: Are there any other related issues for the MCA to take into account?**

## **23 CONSULTATION FRAMEWORK**

The MCA invites comments from interested parties in relation to this consultation.

The consultation period will run until 12.00pm on Tuesday 15 February 2006.

Comments should be sent to:

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Written representations may be made public by the MCA subject to MCA's Internal Guidelines on Confidentiality published on 16 December 2004.

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