

TELECOMMUNICATIONS NUMBERING ADVISORY COMMITTEE

Short Codes for Value-added SMS Services

Introduction

It comes to the attention of OFTA that the short code "508618" is used for short message service (SMS) in a TV quiz programme which could be routed by all mobile networks. The senders of the short messages will have to pay service charges in addition to the delivery charges for the conveyance of the short messages. This type of SMS could be considered as value-added SMS.

2. In the Hong Kong Numbering Plan, telecommunications numbers with prefix "5" have been reserved for future migration of numbering plan to longer digits in the numbering plan and has not been opened for allocation to any telecommunications services. Hence, the deployment of the short code "508618" for value-added SMS is in violation of the numbering plan and should be terminated. Given there is no dedicated codes or numbers deployed for value-added SMS in the numbering plan, this paper discusses the proposed allocation of short codes for value-added SMS.

What is Value-added SMS

3. Value-added SMS constitutes the use of SMS to provide a content service to the customers, often incurring a premium charge related to the content payable by the customers. The mobile operators provide the delivery and billing service while the service or content providers provide the value-added services. Some examples of value-added SMS are event-driven content services (e.g. football alert, personalized stock information), travel information, ringtone download, game, etc.

Use of Arbitrary Codes as service access codes in mobile networks

4. The use of arbitrary short codes as the feature access codes in mobile networks were discussed in previous NAC meetings in 1997. There were concerns about the use of arbitrary short codes in mobile networks which would

have impact and conflicts with the Hong Kong Numbering Plan. As such, the TA in the NAC Paper 13/1997 strongly recommended the mobile network operators to relocate those existing short codes to the short codes in the "17" and "19" levels or short codes with prefix "#" or "*". Although the mobile network operators might continue to use those existing arbitrary short codes at that time, these short codes might be required by the TA to be relocated to other codes.

Overseas Experience

5. To facilitate the Members to consider the issue, OFTA has gathered some information on the provision of value-added SMS overseas. The Office of the Director of Telecommunications Regulation of Ireland (ODTR) and Malta Communications Authority (MCA) consider that value-added SMS generates new forms of mobile content or applications, offers a rich content and application environment for customers, and improves customer choice. Dedicated short codes are thus made available for value-added SMS.

6. ODTR conducted a consultation in 2001. The mobile operators and service providers stressed the importance of short codes for the continued growth of value-added SMS. ODTR considered that in the past short codes were not available for independent service providers who are thus placed at a competitive disadvantage. To meet with the potential demand, short codes are allocated to service providers of value-added SMS. Such arrangement would also eliminate inefficient use of short code in which different network operators assign different access codes for a single service provided by a service provider.

7. The ODTR has adopted a numbering structure of 5-digit codes (5XXXX). The ODTR proposes that from the onset, network operators and qualified service providers can apply for up to four "5XXXX" short codes of their choice to cater for different types of services.

8. ODTR adopts two implementation scenarios. In the first scenario (Scenario A), a short code is assigned to a service provider after it enters an agreement with a network operator. The service provider has to connect to each mobile network with relevant commercial agreement in place to ensure that its value-added SMS could be accessed by customers of the mobile network. In the second scenario (Scenario B), service providers select a single host operator who can provide access to short codes from all networks through inter-operators

agreements. In this connection, a service provider is only required to connect to one host operator who subsequently settles the relevant charges with other operators.

9. In Malta, the MCA allocates 9 blocks with 6-digit to 8-digit numbers in "50X" level for value-added SMS. Each block of "50X" numbers consists of 50X XXX, 50X XXX X and 50X XXX XX numbers. The MCA plans to allocate a number block for each mobile operator, a common range for services offered by independent service operators and a common range for m-government service.

Available Short Codes / Numbers in the Hong Kong Numbering Plan

10. Regarding the allocation of numbering resources for value-added SMS, several options are available for consideration.

- a. *"*" and "#" prefixed feature access codes.* These prefixed codes have been used as service access codes in mobile networks for a long time. However, service or content providers will have to discuss with each network operator in order to obtain a common access code for the proposed service.
- b. *"19" short codes.* "19" codes are commonly assigned to all mobile network operators. These codes may be used for service access but these codes will not be passed across networks. In this connection, there are some limitations on the use of "19" codes for code implementation Scenario B which involves passing short messages across networks.
- c. *"17" short codes.* Each mobile network operator is assigned with a unique "17" code for various mobile services such as customer hotlines. The mobile network operators may use spare "17" codes for the value-added SMS.
- d. *"14(8-9)" short codes.* These are the two spare codes available in the "14" number level for "network identifier". Since the majority of the FTNS operators (except one) have used "network numbers" instead of "network identifiers" for number portability, it was agreed that these spare

codes can be released for other services¹. As such, one thousand "148XXX" can be allocated for free value-added SMS and one thousand "149XXX" short codes for premium rate service.

- f. *8-digits mobile numbers*. At present, mobile subscriber numbers i.e. numbers with prefixes "6" and "9" are used for provision of both voice and short message services. It is considered that these numbers could be deployed for value-added SMS. However, it has the disadvantage of being 8 digits in length which might not as easily memorized as 6-digit short codes.

Migration of "508618"

11. As explained in paragraph 2 above, the use of "508618" does not comply with the Hong Kong Numbering Plan and should be terminated. Before a decision on the allocation of short codes for value-added SMS is made, the mobile network operators should use short codes in "17" and "19" levels, "*" and "#" prefixed feature access codes or ordinary mobile numbers for provision of access to the service.

Advice Sought

12. Members are invited to give their comments and views on the above issues, in particular,
- (a) whether there is a need to allocate short codes for value-added SMS;
 - (b) what type of short codes should be allocated for the service;
 - (c) who will be eligible for application of the short codes; and
 - (d) the preferred implementation scenario (as described in paragraph 8) to be adopted in Hong Kong.

Office of the Telecommunications Authority
November 2003

¹ Paragraph 6 of Issue 5.2 of HKTA 2102 "Procedure for Handling Number Porting by Database Solution" issued on 28 March 2003