3 LEVEL '0' AND '1' SHORT CODES

3.1 General

Short codes are 3, 4/5-digit numbers that allow callers (end-users) to gain access to services provided by telecommunication licensee.

3.2 Level '0' Short Codes

The use of the level '0' short codes is restricted to prefixes for regional trunk and international calls. These prefixes consist of 3-digit numbers. A summary of Level '0' Short Codes is shown in Table 3.1.

Table 3.1: Summary of Level '0' Short Codes

Prefix	Description
00X[6]-03X	International Direct Dial(IDD) service / International telecommunication services / Subscriber Trunk Dial (STD) service & Border Town Call service
04X-09X	Reserved for future use

3.3 Level '0' Short Codes Eligibility Criteria

Due to the scarcity of the 3-digit access codes relative to the 4-digit access codes, only Facilities-Based Operator[7] (FBO) licensees that have committed an overall investment of no less than S$150 million in infrastructure, over the first 3 years from the date of licensing, are eligible for the allocation of 3-digit access codes. The investment shall include international connectivity and capacity that will expand the overall global international reach from Singapore.

3.4 Restriction on Level '0' Short Codes

3.4.1 In order to conserve the 3-digit access codes to meet all justifiable demand for as long a period as possible, each eligible FBO is restricted to <u>one</u> '00X' code

[6] 'X' is used to denote digit '0' to '9'

[7] Facilities-based operators refers to licensees who deploy of any form of telecommunication networks, systems and facilities, outside of their own property boundaries, to offer telecommunication services to third parties, which may include other licensed telecommunication operators, business customers or the general public.

(subject to availability) and six '0XX' codes[8]. Subject to IMDA's approval, additional Level '0' short code requirements beyond assigned limit, especially for differentiated schemes under the same service which has already been assigned a 3-digit access code, is to be met by 4-digit access codes.

3.4.2 Notwithstanding the above, IMDA reserves the right to review the restriction of 3-digit access code allocation from time to time. IMDA also reserves the right to review the service providers' usage of 3-digit access codes from time to time to determine if they are being used efficiently. IMDA will recover those access codes that are not used efficiently by giving the service providers at least 6 months' advance notice.

3.5 Level '1' Short Codes

3.5.1 Level '1' short codes are allocated for providing special services and IDD type services to customers. The special services include calls for operator assistance, service enquiry, M2M services, Internet dial-up, voice information and IN services.

3.5.2 Number assignments in the level '1' range are categorised such that similar ranges of numbers are used for similar services. A summary of the Level '1' Short Codes in shown in Table 3.2.

Table 3.2: Summary of Level '1' Short Codes

Level '1'	Description
10XX	Operator assisted telephone services/ bookings
11XX	Operator to operator call
12XX	Reserved for future use
13XX	Service Indicator/ Service access code (e.g. voice mail)
14XX	Routing Number (Except for "144XX")
144XX	M2M access code
15XX/15XXX	International telecommunication services
16XX	Service Enquiry and Assistance
17XX	Internet dial-up, Voice Service/ Other services

[8] Restriction applies for all applications following the full liberalisation of telecommunications market on 1 April 2000.

Level '1'	Description
18XX	IN services
19XX	IN services/ network test codes

3.6 Level '1' Short Codes Eligibility Criteria

Generally, only FBOs are eligible for level '1' short codes. Exceptions are:

a) Service-based Operator[9] (SBO) (Individual) licensees providing M2M services are eligible for '144XX' access code.

b) SBO (Individual) licensees providing International Simple Resale (ISR) service (excluding solely wholesale service) where customers can have one stage IDD dialling through PSTN and where access is not via card mode nor Personal Computer-based. These operators are eligible for '15XX' access code.

c) SBO (Individual) licensees providing Public Internet Access service. These operators are eligible for '17XX' access codes.

3.7 Restriction on Level '1' Short Codes

3.7.1 M2M services (i.e. '144XX')

M2M communication refers to the automated communication between machines and devices. In cases where M2M communication includes voice communication, these shall mean voice services within a pre-defined service feature and/or within an intended or a closed user group.

The M2M access code allocated may be used with international connectivity and international roaming services[10].

[9] Service-based operators (SBOs) licensees refers to licensees who lease telecommunication network elements (such as transmission capacity, switching services, ducts, fibre) from FBO licensees to provide telecommunication services to third parties; or resell the telecommunication services. Licensees who have deployed telecommunication network, systems and facilities within their own property boundaries, but wish to offer telecommunication services to third parties resident within their property boundaries are also classified as SBOs.

[10] M2M international interconnectivity refers to a M2M device in Singapore using a Singapore M2M number to communicate with a device or service outside Singapore, while international roaming refers to an M2M device with a Singapore M2M number that can continue to be used overseas outside of the Singapore networks.

3.7.2 International Telecommunication services (i.e. '15XX')

Eligible SBOs providing ISR service are restricted to the use of one 4-digit short code.

SBOs are permitted to extend their '15XX' code to five digits for the provision of telecommunication services (e.g. local call-back service, differentiated ISR service etc) other than the international telecommunication service, subject to the following conditions:

a. At least one of the extended 5-digit codes, '15XXY', must be used to provide an international telecommunication service (e.g. International Simple Resale). If the international telecommunication service is terminated, the '15XX' code will be unconditionally withdrawn.

b. The dialling format for services using the short code must be such that the short code is immediately appended with a number that complies with International Telecommunication Union's (ITU's) E.164 recommendations.

c. IMDA's approval must be sought for the use of each of the 4 or 5-digit code (e.g. 15XX, 15XX1, 15XX2, 15XX3 etc.)

3.7.3 Enquiry Service (i.e. '16XX')

In order to conserve the short codes for enquiry service, the use of such codes will be restricted to four 4-digit codes per FBO. FBOs are to consider using the 8-digit PSTN numbers or '1800' numbers for their enquiry services if they have expended their allocation of four 4-digit codes[11].

3.7.4 Internet dial-up, Voice Service / Other services (i.e. '17XX')

SBOs providing Public Internet Access service are restricted to the use of one 4-digit short code. With IMDA's approval, licensees may extend the 4-digit code to 5 digits to provide additional access codes for their differentiated service.

[11] Restriction applies for all applications following 06 July 2010.

3.8 Level '0' and '1' Short Codes Allocation Criteria

3.8.1 Generally, level '0' and '1' short codes are allocated for use by a public telecommunication service provided by licensed public telecommunication service operator. Usage should meet the following conditions:

a) The service nature is such that using short code is a necessity, an example being a restriction on the total number of digits that the service can accommodate for effective call routing; or

b) The service reaches a significantly large user base and there are possibilities of high service usage, such that it would really benefit the users if a short code is used;

3.8.2 In addition, eligible FBOs requesting for 3-digit access codes must use the codes to provide service for the mass consumer market, an example of which is the offering of international public switched services to the general public. Eligible FBO offering international communication services to corporate users alone will not be qualified for 3-digit access codes.

3.8.3 Licensees providing M2M services using the M2M access codes, i.e. '144XX' are encouraged to maximise the allowable numbering capacity with a 13-digit numbering format (excluding country code) for each M2M access code.

Application charge

FBO licensees may apply for up to three M2M access codes without charge. For each subsequent M2M access code allocated after the third access code, a fee of $10,000 per M2M access code will be levied.

SBO (Individual) licensees may apply for up to two M2M access codes without charge. For each subsequent M2M access code allocated after the second access code, a fee of $10,000 per M2M access code will be levied.

Implementation timeline

Licensees allocated with M2M access codes are required to put the codes into service within 12 months from the date of assignment by IMDA. If the licensee fails to comply with this requirement, IMDA shall be entitled to recover the allocated M2M access code. A licensee who fails to comply with this requirement shall be required to pay a "Recovery Fee" of $20,000 before the licensee can apply for further M2M access codes.

IMDA may, if justified, grant a one-time extension to the implementation date for a period of up to 6 months.

3.8.4 SBOs providing Public Internet Access service requesting for a '17XX' code must use the code for a service that can attract mass dialling[12] from a huge number of users (e.g. free surf or free Internet access service open to all PSTN subscribers). In addition, licensees must demonstrate to IMDA that there is no other effective ways of having faster dial-up access.

3.8.5 In considering the application for using level '0' and '1' short codes, IMDA will ensure that there are sufficient short codes available for allocation for similar services provided by different licensees in the foreseeable future and that the allocation will not unintentionally create a situation whereby a licensees be given an unfair advantage over others offering similar services.

3.9 Level '0' and '1' Short Codes Allocation Procedure

3.9.1 Generally, the process of allocating level '0' and level '1' short codes is by bidding and/or balloting (except for '14XX' and '144XX'). Please refer to Annex 1 for the Procedure for Assigning 3-digit Access Codes and Annex 2 for the Procedure for Assigning 4-digit Access Codes for level '0' and level '1' short codes respectively.

3.9.2 IMDA reserves the right to allocate the '14XX' and '144XX' access codes in a sequential or non-sequential basis.

3.9.3 Existing assignments of Level '0' and Level '1' Short Codes are shown in Annex 3.

3.10 Application for Level '0' and '1' Short Codes

To apply for the required resource, please write to IMDA providing the following:

a) Number resource requirement;
b) Technical and operation details relating to the requirement of the number resource;
c) Target service date; and
d) Contact person for clarification.

[12] Mass dialling refers to a huge influx of calls within a short period of time

3.11 Other Information on Level '0' and Level '1' Short Codes

3.11.1 Short codes can be categorised into 2 groups:

a) Category I - codes which are universally accessible[13] and allocated to a single licensee; and

b) Category II - codes which are universally accessible and universally allocated[14] to all licensees.

3.11.2 All licensees must share the following Category II access codes:

a) '000' international dial direct (IDD) access code

b) '1800' toll-free services access code

c) '1900' premium rate services access code

d) '100' directory enquiry services access code

e) '19XX' internal network test / routing access code

f) '1711' time announcement service

3.11.3 IMDA reserves the right to review the current categorisation of short codes and classify more numbers under Categories I and II where necessary.

3.11.4 Unless otherwise stated, all assigned access codes fall in the Category I.

3.11.5 In certain situation, IMDA will require service provider to extend the digit length of the access code by one to expand the codes available.

3.11.6 Generally, 4-digit codes in the '19XX' are used for network testing. In certain services where access code is confined within a particular network, IMDA may allow service provider to reuse the '19XX' code for service provision. Allocation of codes in the '19XX' series is on a sequential basis.

[13] "universally accessible" refers to the ability of any end-use to gain access to the respective services regardless of which licensee's network the end-user is using. The service may or may not be provided by this licensee by default. This will however be transparent to the end-user.

[14] "universally allocated" means that all licensees will use the same code for provision of certain specific services