



**MALAYSIAN COMMUNICATIONS AND
MULTIMEDIA COMMISSION**

**INDUSTRY WORKSHOP - EAN-ICC
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**ELECTRONIC
ADDRESSING AND NUMBERING
INITIAL ISSUES PAPER**

A Supplemental Note



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A. INTRODUCTION

1. PURPOSE

This is a supplemental note to the Initial Issues Paper dated 27 September 2001. The Initial Issues Paper sets out a range of initial issues relating to numbering and electronic addressing for discussion at the Industry Workshop On Malaysian Electronic Addressing And Numbering ("Industry Workshop") scheduled to be held in Kuala Lumpur on Wednesday, 3 October 2001.

The purpose of the Industry Workshop is to gain the widest level of industry participation and involvement possible in the project that Zaid Ibrahim & Co., in conjunction with Ovum Pty Ltd, are undertaking for the Malaysian Communications and Multimedia Commission ("Commission").

2. BROADCASTING

Broadcasting services as they have existed in the past, is of little, if any, relevance to the planning of any electronic addressing and numbering regime. This is due primarily to the fact that such services have thus far existed in isolated networks.

However in a convergence environment, the aforesaid will no longer hold true. With convergence, we now see broadcasting networks being linked with ubiquitous addressing systems such as the Internet. This has given rise to Internet broadcasting or sometimes referred to as webcasting. All of these are enabled by new broadcasting technologies that are developing rapidly.

Where customer premises equipment (such as the set-top box) interacts with the Internet to provide services such as access to email or ENUM based services, these set-top boxes and associated services will also need to be capable of being addressed in a compatible manner. It is possible, at least for certain countries, for the set-top box to become an important access device to the Internet for a large number of its people. This will open up the full range of current and developing Internet services to a traditionally one way content delivery terminal (eg. a television set).

The possibilities for broadcasters in this converged environment includes electronic mail access, web browsing, and e-commerce transactions such as shopping or banking. Internet Protocol multicasting provides means of accessing and addressing for services to multiple customers such as webcasting (on a one-to-many basis) and audio and video conference calls (on a many-to-many basis).

It is with the above context that the views of those in the broadcasting industry are sought in the Industry Workshop. The issues highlighted here are relevant to the topic area assigned to Working Group A (Long Term Numbering and Electronic Addressing Plans) and, to a certain extent, Working Group C (Availability, Allocation and Charging).

3. MULTI-LINGUAL DOMAIN NAMES

The Internet has its roots from the United States of America and has very much developed as a very American/English language-centric communication medium. As the world community embraces the Internet, we are beginning to see cultural specific content being developed outside of the United States especially in countries where the English language is not the dominant *lingua franca*.

Being home to populous nations like China, India and Indonesia, the Internet looks set to become more Asian-based when Internet connectivity becomes ubiquitous in Asia. It is estimated by some that more than one billion Chinese people will be connected to the Internet by the year 2007 and this could be an indication that the Chinese language may become the primary language of Internet content by 2007.

Being a country endowed with a multi-cultural and multi-language heritage, it is arguable that Malaysia may still vie for a niche position as the domain hub for multi-lingual domain names. Nevertheless the advantage that Malaysia has is slowly evaporated by initiatives which other foreign public and private sector are aggressively pursuing. At the moment development in this area of multi-lingual domain names has been haphazard and largely unregulated. The Internet Engineering Task Force is currently resolving the technology issues related to multi-lingual domain names.

The issue for the delegates to consider is whether multilingual domain names is an area that Malaysia should aggressively pursue. If so, how may Malaysia capitalise on its cultural advantage in respect of multi-lingual domain names? The delegates are expected to discuss how any future electronic addressing and numbering plan may aid in Malaysian endeavours (whether it is a public or private sector initiative) to become a multi-lingual domain name hub? These issues are especially pertinent to the issue topic assigned to Working Group A (Long Term Numbering and Electronic Addressing Plans).

4. CUSTOMER EDUCATION

As with any public plan which affect consumers in a direct and material manner, consumers' views and concerns are invaluable in shaping the development of any electronic addressing and numbering plan.

The key factors to the successful implementation of such electronic addressing and numbering plan are customer education and awareness. If consumers find the new regime too complex or out of touch with their needs, this will more often than not have a retardant and reverse effect than what was intended.

It is interesting to note that even today in Malaysia many consumers may not appreciate the intricacies of the current numbering system. As such it is possible that the conscious decision to impose a limitation to a numbering range as a trade off to an anticipated consumer benefit may in reality have resulted in a large number of

unused numbering blocks. Overall, the system becomes more inefficient than it needs to be. An example is perhaps the tariff related code in the 600 number series.

It is likely that consumer adoption of any new plan will be dependent on the simplicity of its design. Where necessary, consumer adoption must also be aided by substantial consumer education and transition arrangements. The cost of any education programs will depend on how material the changes are to the current framework. Consumers may also require substantial adjustment lead time for any numbering change that affects the numbers they currently utilise. For example, businesses will require a certain lead time to plan and prepare for a smooth changeover to a new numbering regime. Such preparation will more often than not be a costly exercise requiring changes to their promotional, stationery and other materials.

It is important therefore that consumer concerns be represented and noted during the Industry Workshop. This will ensure that the issue of consumer education will be considered in a more relevant manner as part of any electronic addressing and numbering plan that might be developed. Consumer concerns and consumer education issues should especially be considered by Working Group B (Portability and Consumer Education), Working Group E (Current Operational and Implementation Issues) and Working Group F (Personal Numbering).