2009 ANNUAL REPORT: BROADBAND TOWARDS 1MALAYSIA

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09 ANNUAL REPORT

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Statutory Requirement

In accordance with Section 47 of the Malaysian Communications and Multimedia Commission Act 1998, the Malaysian Communications and Multimedia Commission hereby publishes a report that entails the activities of the Commission and has submitted it to the Minister of Information Communication and Culture together with a copy of its Audited Financial Statements of the Malaysian Communications and Multimedia Commission Fund for the Year Ended 31 December 2009 to be laid before both Houses of Parliament.

“High speed broadband is a key enabler to transform Malaysia as a middle-income nation to a high-income nation. It will make Malaysia a 21st century nation.”

Yang Amat Berhormat Dato’ Sri Mohd Najib Bin Tun Haji Abdul Razak
Prime Minister of Malaysia

Broadband Towards **1Malaysia**

The *bunga raya* with fibre optics radiating upwards heralds an exciting new era – the birth and the proliferation of high speed broadband in Malaysia. Broadband is required for advanced and bandwidth services such as digital homes, medical imaging and multi-channel high-definition TV applications and services. We are already well under way to 'broadband' the nation so that its *rakyat* can enjoy the benefits and uplift their lives through the use of broadband and communication technologies. Together we are building and creating a 1Malaysia nation with broadband.

National Policy Objectives

We shall endeavour to fulfill the 10 National Policy Objectives for the communications and multimedia industry as enunciated in the Communications and Multimedia Act 1998:

1
To establish Malaysia as a major global centre and hub for communications and multimedia information and content services

2
To promote a civil society where information-based services will provide the basis of continuing enhancement to quality of work and life

3
To grow and nurture local information resources and cultural representation that facilitate the national identity and global diversity

4
To regulate for the long-term benefit of the end-user

5
To promote a high level of consumer confidence in service delivery from the industry

6
To ensure an equitable provision of affordable services over ubiquitous national infrastructure

7
To create a robust application environment for end users

8
To facilitate the efficient allocation of resources such as skilled labour, capital, knowledge and national assets

9
To promote the development of capabilities and skills within Malaysia's convergence industries

10
To ensure information security and network reliability and integrity

Vision

To become a globally competitive, efficient and increasingly self-regulating communications and multimedia industry generating growth to meet the economic and social needs of Malaysia.

Core Values

- Authoritativeness
- Integrity
- Competence

Mission

We are committed to:

- Promoting access to communications and multimedia services;
- Ensuring consumers enjoy choice and a satisfactory level of services at affordable prices;
- Providing transparent regulatory processes to facilitate fair competition and efficiency in the industry;
- Ensuring best use of spectrum and number resources; and
- Consulting regularly with consumers and service providers and facilitating industry collaboration.

Clients' Charter

Our undertaking to our clients are:

General Consumers

- Recording all complaints received
- Acknowledgement to complainant within three working days
- Forward complaint received to relevant service provider within five working days
- Follow-up on status of complaint from service provider after 15 days

Assignment Applicants

Apparatus Assignment (AA)

- 60 days to process the AA application subject to the Licence Committee meeting, border co-ordination by FACSMAB, JTC and Trilateral (Malaysia, Singapore and Indonesia) meetings and approvals

Number Assignment

- 30 days to process normal assignment applications e.g. PSTN Numbering Application
- 45 days to process special assignments e.g. mobile, short codes

Licence Applicants

- 45 days from receipt of complete application to process NFP, NSP and CASP licence applications and to recommend to the Minister for approval
- 30 days from receipt of complete submission to process NFP and NSP class licence registrations
- 15 days from receipt of complete submission to process ASP class licence registration

Licensees

- Promote fair competition and market development through transparent regulatory processes as outlined in the CMA 1998
- Provide resolutions to disputes when necessary
- Promote effective regulation by monitoring all significant matters relating to the performance of its licensees and reporting to the Minister at the end of each financial year
- Review the Rules & Regulation every three years or as and when directed by the Minister. This is to ensure that the Rules & Regulation remain relevant

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Foreword by the Minister

In the path towards transforming the nation into a high-value and developed nation, the communications and multimedia industry will indeed play an important role in many ways. The communications and multimedia industry not only contributes to the nation's socio-economic growth but also to its cultural development as well.

Broadband is recognised as a catalyst in the drive towards transformation. We have embarked on an aggressive programme to provide broadband services to the people and accelerate the broadband penetration rate in this country. The 1Malaysia Netbook distribution to qualified students and families and the 'Kampung WiFi' are two of the more outstanding initiatives of the broadband programme. SKMM has been entrusted with the responsibility of implementing the National Broadband Plan and ensuring that the people receive adequate access to communication and broadband services at affordable prices and as an industry regulator, it functions in a transparent manner while facilitating fair competition and efficiency amongst the industry players. I envision that no one will be left out in the drive towards the nation's transformation.

Malaysians are now more exposed to the various media platforms than before. As the authority and custodian of the Communications and Multimedia Act 1998, Postal Services Act 2001 and Digital Signature Act 1997, the Commission's functions and responsibility are increasingly becoming more apparent and significant.

This Report presents the Commision's achievements and activities, signifying various aspects of its governance and functions. I have every confidence that the Commission will continue its sterling performance with the support and participation of everyone involved.

DATO' SERI UTAMA DR RAIS YATIM
Minister of Information Communications and Culture

Chairman's Message

Changing Dynamics

2009 saw many changes that affected the Malaysian Communications and Multimedia Commission, the industry at large and the Malaysian economy. 2009 also brought changes to the nation's leadership governance and the political climate. With the changes in leadership, the Commission came under the guidance of the Minister of Information, Communications and Culture and a newly appointed Chairman at the helm.

TAN SRI KHALID BIN RAMLI
Chairman

With the new leadership in Government, came the Prime Minister's vision of 1Malaysia that is encapsulated in the Government Transformation Programme (GTP) for the Government and a focus on 6 National Key Results Area (NKRA) in which the Key Performance Indicator (KPI) of Government agencies is expected to play an essential role in improving the effectiveness of the Malaysian Government. The NKRAs include crime prevention, reducing corruption, increased access to quality education, improvements in the standard of living for low income groups, enhancements to rural infrastructures and improvements to public transportation – areas which communication and multimedia had an active role to play. The Prime Minister did not waste any time further, the New Economic Model was introduced to be integrated into the 10th and 11th Malaysia Plans. The goal has been set for Malaysia to be a high value, high income developed nation by 2020.

In this regard, the Commission had a head start in that its goals had already been set in the Communications and Multimedia Act 1998 and implementation of the 10 National Policy Objectives for the communications and multimedia industry including achieving the objectives of the MyICMS886 and the National Broadband Plan that sought to 'broadband' the nation so as to enable the people and businesses to contribute to the economic and social growth of the nation. It is expected that 50 per cent household penetration of broadband is able to provide up to 1 per cent of the GDP and create up to 135,000 jobs in the market. At the end of 2009, there were 2.4 million subscribers of broadband representing a household penetration rate of 31.7 per cent.

With the instruments of change being put into place, the Commission as an implementation agency of Government indeed had to quickly take stock and reassess its raison d'être so as to be in line with the objectives of 'Gagasan 1Malaysia', the Government Transformation Programme and the New Economic Model initiatives. Fresh impetus and development for new focus areas and initiatives had to be put in place, and put in place quickly.

The Honourable Minister further enjoined the Commission to accelerate efforts at achieving the target penetration rate and in the spirit of 1Malaysia to address the digital divide gap between urban and rural areas of the country so that the peoples of the country would be able to benefit from broadband services. New initiatives were identified that would broaden the scope and reach of broadband to the people. These new initiatives were set to be launched in early 2010 as the National Broadband Initiatives. These initiatives included the 1Malaysia Netbook programme, reintroduction of the Information Department regional offices into Mini Community Broadband Centres, the Broadband Awareness and Promotion Campaign and construction of new telecommunication towers and infrastructure across the country to add to existing ones.

The NBI initiatives brought about fresh impetus towards the basic tenets of Bridging the Digital Divide in Malaysia; together with the on-going Universal Service Provision programme, it enabled the 'rakyat' to leap-frog en masse in the race towards being a developed country. These enablers will also be the setting point of future planning and development of the communication and multimedia industry in Malaysia. Review and changes to the industry plans and regulations such as to the MyICMS886, National Broadband Plan, National Spectrum Plan, content development and regulation are certainly due and will indeed have the NKRAs, the Government Transformation Plan and the New Economic Model in mind for the review.

Development of the communications and multimedia industry in 2009 was further characterized with a shift in focus from infrastructure development to an enhancement of content development and regulation and strengthening of enforcement and monitoring activities.

New development and changes also came in the regulatory and monitoring activities of the Commission as progress in technology brought about new areas to focus in for regulation especially in the area of consumer protection, on-line transaction and activities, cyber security as well as network security. Our Consumer Protection Monitoring System, the Consumer Forum and the Quality of Service mandates for the industry were improved to ensure that more effective consumer protection activities were put in place. Further, with broadband services being offered to the public and while the people enjoyed access to all forms of media, due regard and restraint had to be given to the political and cultural sensitivities of the Malaysian society. Hence, awareness, enforcement and monitoring of the new media took centre stage.

Organisational Transformation

Change is synonymous for the communications and multimedia industry, hence as the regulator and developer of the industry it is de rigueur for the Commission to keep pace with change, time and progress. As an organisation we are constantly seeking ways to improve and innovate.

The change management programmes that were initiated in 2008, continued and developed in 2009. With the changes in leadership and direction, the Commission with the guidance of the Honourable Minister has embarked on a journey in developing new strategies and initiatives that would align itself with the New Economic Model and Government Transformation Plan. No doubt, the Commission and the communications and multimedia industry has a leading and catalytic role to play in realizing the vision of "Malaysia as the ICT Regional Hub" and to promote the culture of innovation across all of society.

The Commission's organisational transformation practices continued to focus on building a performance driven culture to ensure that the institution is able to deliver on its core mandate of effective regulation and development of the industry. The main areas that contribute to organisational change include organisational and human capital performance management planning, business process improvements and strategic ICT initiatives that would enable the Commission to function effectively as a regulator and industry developer.

These programmes gave attention to efforts at retaining, upgrading and improving the organisation's Human Capital talent, skills, knowledge, capabilities and reward. In line with the Government Transformation initiative that gave focus on defining Key Result Areas (KRAs) and Key Performance Indicators (KPIs), the Commission also strengthened its organisational KRA and KPIs and its Performance Management System with emphasis on developing individual KRAs and KPIs that is aligned to organisational strategies. Combined with the process improvement project which began in 2009, improvements were reflected in better responses and performance of the targets set for the organisation.

In addition to strengthening the organisational KRA's and KPI's, the overall organisational structure was also restructured, so as to streamline the functional departments into two main clusters that cover the areas of Regulatory & Compliance, and Planning & Development headed by capable senior management of the Commission.

As the Commission strategise and gears itself for the future, 2010 will see a further refinement and adjustment to the both the organisational KRAs and KPIs as well as the organisational structure and human capital engine that drives it.

Rapid technology change is synonymous with the communications and multimedia industry, and realizing that the Commission has put its internal Information Technology (IT) development and upgrade as a priority area for improvement. The IT/IS Strategic Plan was laid out in 2008 and continued to be deployed in 2009. The main thrust of the IT transformation in the Commission was connectivity and improvement in our performance delivery so as to better serve our 'clients' or stakeholders. This included integration of the many systems application that powered the monitoring systems and data bases crucial to the Commission's operations. Several initiatives were also taken to provide better IT facilities for SKMM staff helping in their day-to-day work and overall performance.

Realising the importance of technological advancement in the communications and multimedia industry, continuous innovation, development and upgrades to the Commission's IT infrastructure and systems to support its regulatory and developmental role will continue well into the future.

Change is dynamic and inevitable. It is up to us to make those changes the best for the organisation and the best for the nation.

Communications as the Impetus of Growth

Broadband the Enabler

At the height of the world economic downturn in 2009, the Malaysian communications and multimedia industry was able to grow and achieve a market capitalisation of RM103.5 billion or 10.4 per cent of the total Bursa Malaysia market capitalisation from RM48.5 billion or 7.3 per cent market capitalisation of 2008. The whopping 113.4 per cent increase was due to a major communications company listing in 2009 and higher market capitalisation posted by other communications companies in the industry. Industry revenues which consist of the telecommunication providers, the broadcasters, postal services and digital signature providers totaled RM41 billion in 2009, a somewhat slight increase from RM40.8 billion in 2008 yet, overall, the communications and multimedia industry revenues was able to contribute and represented 6.2 per cent and 8.2 per cent of the country's GDP and GNP respectively.

Since the implementation of the Communications and Multimedia Act 1998 licensing framework, the communications and multimedia industry has achieved marked progress in many different aspects. Among those developments include the proliferation of a number of private sector telecommunications, television and radio service providers. In the year 2000, 95 licenses have been issued forth where 20 licenses were network facility providers, 19 were network service providers, 18 were network application service providers and 38 were application service providers. Since 2000 and until end of 2009, the number of license issued has multiplied many times over; 683 licenses have been issued whereby 98 are network facility providers, 102 network service providers, 39 content application service providers and 450 were application service providers.

No doubt, the industry is alive and kicking; making significant contributions to the Malaysian economy in 2009. Its role is important for the nation's growth, not only for the investment and revenues it generates but also for the manufacture of goods and provision of services that it generates, the jobs it creates, the innovation that it inspires and shapes the competitive landscape of a nation.

As members of the industry and the public at large are well aware of, we are well underway in implementing the National Broadband Plan of achieving 50 per cent household penetration rate by end of year 2010 or 3.2 million homes able to enjoy a wide range of Internet services or applications.

As at end of 2009, broadband connections recorded a subscription base of 2.6 million household or 31.7 per cent penetration rate. The target was to meet at least 30 per cent of household penetration by end 2009, hence we met that target with room to spare. We look onwards now towards the target by end 2010.

In the drive towards achieving the target, I am happy to commend the unrelenting efforts and collaboration with the industry to meet the target together. The Government and industry service providers have hand in hand worked hard on a number of measures including the NBI initiatives, High Speed Broadband (HSBB), Broadband to the General Population (BBGP), Universal Services Provision (USP) programmes, tax incentives for broadband subscriptions, broadband product and low-cost package development as well as awareness and promotion campaigns on the benefits of broadband.

Along the way, an innovative by-product was created in the form of the SKMM Magic Map, an information mapping application service, to assist the Commission to plan, execute and monitor implementations under the National Broadband Initiatives. The Magic Map has since been used extensively not only for the NBI but also for other monitoring and enforcement activities by the regulator.

Further, with the population steadily shifting towards new media and on-line activities, SKMM has taken the lead in providing a proactive security platform to reduce any negative impact to the network and to raise awareness regarding cyber security threats and issues. In fact the opportunity to raise awareness regarding cyber security came with the World Telecommunications and Information Society Day 2009 with the theme 'Protecting Children in Cyberspace' where the Commission held an awareness campaign with the newly formed Ministry of Information, Communications and Culture and members of the communication and multimedia industry to raise awareness of not only the threats and dangers of the Internet, but also protective measures that can be taken as parents and guardians of children.

At the same time, the Commission had made preparations to expand the Malaysian Internet Exchange (MyIX) in a bid to keep the Internet traffic, local by promoting and encouraging direct peering among the local Internet Service Providers. The MyIX was established in 2006, also acts as a co-operative effort to keep Internet traffic local by promoting and encouraging direct peering among local Internet Service Providers (ISPs). The effort is beneficial to many ISPs since this peering infrastructure assists to lower ISP costs for routing their Internet traffic and ultimately make the broadband experience more enhanced for the users. At the end of 2009, the MyIX phase for Sabah and Sarawak was launched by the Honourable Minister, expanding the Exchange facilities for ISPs and ultimately users there.

Broadband to the 'Rakyat'

As mentioned, efforts to implement the National Broadband Plan intensified in 2009 with the implementation of the National Broadband Initiatives (NBI). Under the NBI, implementation was divided into three geographical Zones 1, 2 and 3. Zone 1 which consist of high economic impact areas such as the Klang Valley areas and the regional development areas such as Iskandar Development region in Johor, is expected to contribute most – up to 25 per cent, to the penetration target as well as to overall economic contribution. The HSBB initiative covers these high economic impact areas but this is not the end all – what about the rest of the country and population?

The NBI as with the New Economic Model is meant to be all-inclusive and covers the rest of the country through implementation in all Zones 1, 2 which covers urban and semi-urban areas through implementation of the BBGP and Digital District programmes. Zone 3 specifically covers rural areas where the affordability of broadband is low. Needless to say, Zone 2 and 3 is where most of the population of the country are and the people's needs are to be met.

The rollout of broadband in Zone 3 requires intervention by the Government through the Commission, with the deployment of the Universal Service Provision (USP) programme. Provision of broadband in these areas includes telephone connectivity, Community Broadband Libraries (CBL) and Community Broadband Centres (CBC). The cellular coverage in these areas will be widened by building more communication towers funded through the USP programmes to facilitate the cellular service providers to expand their coverage to 97 per cent of population by 2011. The main objective of the USP programme is to bridge the digital divide between the areas where there are easy access to communication technologies and areas with less access or underserved areas. The indirect objective of the USP programme is that with the development of the CBCs and CBLs in the underserved areas would stimulate the local community economic activities as well.

At the behest of the Honourable Minister and with his strategic vision in mind to accelerate broadband efforts and bridge the digital divide, the Commission undertook a review of the USP and NBI programmes. Additional NBI measures were planned and expected to be announced by the Most Honourable Prime Minister in early 2010. The new initiatives includes the provision of 1Malaysia Netbooks to secondary and university students and families with low-incomes, transformation of the Information Department located all over the country into mini Community Broadband Centres ('MiniPJK') or 'Pusat Jalur Lebar Rakyat' and improvements to cellular coverage within the country's communications ecosystem through the building of 873 telecommunication towers all over the country.

Hence as can be observed, the National Broadband Plan is meant to bring connectivity and broadband to all. These measures are meant for the peoples of the country so that they become part and parcel of the Government's effort at becoming a high-income, highly knowledgeable nation – everyone has the opportunity at betterment and inclusivity into the nation's currents of progress.

High Speed Broadband

The total cost of the HSBB project is RM11.3 billion for the period of ten years with the Government contributing RM2.4 billion for the first three years whilst Telekom Malaysia Berhad (TM) has undertaken to invest RM8.9 billion during the ten year duration. The scope of the project covers end-to-end deployment of high-speed infrastructure that would require installation of new facilities. The project entails deployment of access, core and international connectivity infrastructure. The HSBB project will cover the Klang Valley, industrial areas nationwide and development areas such as the Iskandar Malaysia development area; in other words the high economic impact areas of the country.

By 2012, TM is expected to deploy high-speed broadband access to 1.3 million premises in the areas identified.

Since the Public Private Partnership between the Government and TM was signed on 16 September 2008, we have seen the implementation of the HSBB network for the country. The HSBB groundbreaking ceremony was held in June 2009 in Taman Tun Dr Ismail and marked the laying of works of HSBB infrastructure by TM. By end of 2009 a total of 8,093 kilometres of optical fibre cable with the length of 6,152 kilometres have been successfully installed. As at 31 December 2009, TM has implemented 151,780 premises passed within 41 exchanges located in Kuala Lumpur, Selangor and within the Multimedia Supercorridor (MSC) areas.

It is expected that with the uptake of High-Speed Broadband by businesses and household by the population in those areas would spur more businesses and economic activities in the targeted areas.

Bringing Broadband to Life

Content Development

Content has always been recognized as the main ingredient to drive broadband take-up. Consumers and end-users are more interested in what broadband can deliver to them – the 'what-is-in-it-for-me?' factor - rather than the framework in which it operates. At the same time, it has generated excitement and entrepreneurship in the communications and multimedia industry as evident with the plethora of user generated content such as social networking portals and content sharing platforms such as 'YouTube' . With the right content the broadband world comes alive.

The New Economic Model, the 9th and 10th Malaysia Plan stressed ICT as one of the key catalysts of transforming the country and the content industry is certainly to take a more prominent role as the nation gears itself towards a developed nation status. Over the years the content market in Malaysia expanded with rapid growth especially in line with mobile subscriptions and broadband take-up.

Based on this realisation, the Government has taken various initiatives to develop more local content. In the 2010 Budget speech, the Prime Minister announced the establishment of RM200 million fund to help stimulate the creative industry and launched on 30 December 2009. Added to this, the Government through the Multimedia Development Corporation (MDeC) has set-up a fund with an initial allocation of RM75 million to assist local MSC-status companies co-produce animation and games with foreign partners.

In line with the Government's effort to produce a vibrant local content industry, the Commission had launched he Networked Content Development Grant (NCDG) with an initial size of RM20 million was launched in July 2007. In 2009, the fund was increased to RM50 million. Apart from providing funding, the initiative also aims to facilitate and encourage Malaysian involvement in the creation, production and distribution of highly creative, original and marketable content for domestic and international markets. As at end of 2009 a total of about RM6 million of the funds had been approved to various content projects by content developers.

Apart from those special development funds initiated by the Government through the various agencies, the Government also took steps to streamline the agencies related to content development and regulation, namely RTM, FINAS, ASWARA, Filem Negara Malaysia, the National Archives, and the Commission, into a single Ministry overseen by the Minister of Information, Communications and Culture. This development is expected to integrate and co-ordinate content development activities in a more cohesive way thus leading the way for a more wholesome development of the industry including development of national content policies. In 2009, the Commission played an active and integral role in drafting the Creative Industry Policy and the National Content Policy propagated by the Honourable Minister which seeks to further bring the local content industry to a cohesive whole. Further, Government-industry-public collaboration on content development, regulation and awareness were carried out in 2009 in various forms such as the Mobile Content Challenge 2009 organised by Maxis and the NextGen Contentpreneur Awards 2009 organised by Astro, both in collaboration with the Commission and other Government agencies.

Realising that the media had both good and bad benefits and influences such as cyber threats, pornography, false information and online gambling, the Commission also embarked on a Research Collaboration on Networked Media Content with institutions of higher learnings (IHLs) with a view to establish knowledge resource on the usage of new media channels by Malaysians and in the process assist the Government in achieving national interest and objectives. The project is part of the Commission's on-going efforts to produce findings that could be used to develop practical best practices and policies for managing both the positive and negative aspects of new media more effectively. In addition, public and industry awareness in regard to content development and regulation were made through various media channels to advocate the proper use of networked media including seminars, workshop and talks on various aspects of content, TV, radio, blog and on-line interviews. It is expected that these awareness programmes on content are expected to intensify in 2010, as the country embraces the age of the new media and the need to understand its uses and benefit to the individual and nation becomes a critical necessity.

Broadcasting in the Digital Era

2009 saw further inroads in preparation for the digital television crossover targeted for 2015 and with a view of taking advantage of the new media, the broadcasters in the meantime are innovating new products and services such as content, TV and applications that can be downloaded through the Internet and mobile phones, high definition (HD) content and services, Internet Protocol TV (IPTV) connectivity, mobile TV and even radio digital services.

The Malaysian population is served with their TV services from Channels of Free-to-Air (FTA) TV, a satellite Pay TV provider, and seven new entrants in the Pay TV segment whilst there are more than 40 radio stations operating in Malaysia that are owned by 4 radio service providers including Government owned RTM, Astro, Media Prima and Star Rfm.

The current mode of TV and Radio broadcasting on terrestrial or free-to-air platform is still in analogue format and in line with the development of digital broadcasting around the world, the Government made a decision that digital terrestrial TV services be implemented in Malaysia beginning 2012 and an analogue switch-off date of 2015.

The broadcasting sector which comprise of Direct-to-Home (DTH) Satellite Pay TV service provider and FTA service providers posted an overall growth 7.5 per cent and total revenues generated of RM4.03 billion in 2009, contributed mainly by the Pay TV service provider. FTA TV revenues declined in 2009 with the market on tight advertising budgets

amidst the difficult domestic economic climate, however, activities in upgrading the current analogue broadcasting in-house facility to digital by the FTA service providers are underway and to date almost 90 per cent of the broadcasters' facilities are digital ready, that will enable 16 channels of TV programming and a host of other interactive applications.

Further, in the area of digital FTA TV receivers and Set-up Box (STB) development, the manufacturers, industry stakeholders together with the Malaysian Technical Standards Forum are reviewing the current technical specifications, taking advantage of new technological developments such as DVB-T and STB middleware. These include Integrated Digital TV Receivers (IDTV) which will enable viewers to opt for a digital TV with a built-in STB. Further studies are also underway to ensure that the Malaysian consumer will be able to enjoy the facilities and services of Digital TV when it becomes available in the open market.

This is prepared with the switch over to the digital platform in Malaysia scheduled for 2015 in mind.

National Spectrum Plan

Another major strategic focal point for SKMM in 2009 is the review and development of the National Spectrum Plan which is expected to be completed in 2010.

The current Spectrum Plan was issued on November 2006 under section 172 of the Communications and Multimedia Act 1998. Due to the rapid development in wireless communications and the demand for spectrum, the current Spectrum Plan is now being extensively reviewed. The National Spectrum Plan provides the Table of Frequency Allocation and policies on how the spectrum is assigned, reassigned and used in Malaysia as well as how we plan to use it in the near future.

Spectrum is and will be the buzzword of the industry as we embark on the review process. Spectrum is a national resource , although invisible yet it brings high value to the country. In order to ensure that Spectrum is put to the best use, understanding the ecosystem of the technology is essential, hence the Commission has paved the way with providing the necessary research and forums to better understanding such ecosystems.

As Malaysia embarks into its next stage of growth from resource-led economy to innovation-led economy, there a wide vista of opportunity for industry growth and development originating from the wireless industry. At the same time, we have to find a balance between economic growth and the need of spectrum to preserve public safety and security.

As with all plans that affect the industry and national resources, the Commission took on a consultative approach towards such review and development with the many stakeholder groups that effect the communications and multimedia industry.

The National Spectrum Consultative Committee (NSCC) was established in 2009, and expected to be launched in early 2010 by the Honourable Minister of Information, Communications and Multimedia, as a forum to facilitate consultation and receive focused advice on spectrum management strategic matters between SKMM, and different stakeholders or interest groups, whilst the Spectrum Research Collaboration with designated Institutions of Higher Learning have collaborated in various programmes on projects on spectrum management studies or research. Along with that, the Commission has also organised learning and discussion forums through Conferences, Seminars and Lecture Series throughout the year.

Postal Services in the 21st Century

The Post Office and Mail Delivery network is an essential infrastructure for socio-economic growth whilst the courier and express delivery service industry plays a major role in providing the domestic and international connections crucial for businesses to serve various markets around the globe and for transporting goods and supplies. It provides convenient access to various Government and commercial services. Even though competition is increasingly becoming intense for the post office in the digital era as a result of on-line transaction facilities, it remains an important communication facility for the nation.

Very few sectors in Malaysia come close to the level of physical connectivity with households and businesses, and retail network across the country like postal and express sector. The industry is a multi-billion business with the annual revenue size of nearly RM3 billion, employs 34,000 people and served more than 6.3 million addresses nationwide both in urban and rural areas.

The Commission is the regulator for postal and courier services in Malaysia. The Postal Services Act 1991 seeks SKMM to ensure the high quality conveyance of postal articles and to protect the consumers of postal services.

In 2009, the focus was improving access to post offices especially in rural areas of the country, where the Government through the Postal Industry USP Programme has allocated RM1 million for the development of mini post offices under the "Projek Usahawan Pos Mini Luar Bandar" and "Peti Surat Komuniti" for rural areas.

2009 also saw the Commission issuing a mandatory performance standard for domestic letter service as parts of its efforts to improve the quality of postal services whilst continuing to monitor the measures taken by Pos Malaysia Berhad to improve their performance levels. 2010 is set to bring the seeds of transformation of the postal sector in Malaysia as the National Postal Transformation Plan comes into being and implemented.

The courier service industry is a highly competitive sub-sector with the companies vying to provide the best services to its customers. As at end of 2009, there were 106 licensees compared to 113 in 2008.

As the courier companies compete with each other for a bigger share of the market, at the same time new technologies are introduced to improve services. These technologies include radio frequency identification (RFID) track and trace, using automatic identification system which assists in the storage, management and retrieval of items and documents to complement the records management services. The introduction of these technologies will eventually improve delivery of documents and parcels to the Malaysian consumers.

In terms of revenue, the postal services sector was mainly represented by Pos Malaysia Berhad, contributed an estimated RM0.9 billion or 2 per cent to the communications and multimedia industry revenue in 2009. While we do not have 2009 industry revenue, the courier industry is estimated to have posted RM1.5 billion in revenues in 2008.

Digital Certification to secure On-line and Electronic Transactions

The Government has been promoting the use of the electronic media and on-line transactions. The Electronic Government Activities Act passed in 2007 gave recognition to electronic transactions as the equivalent of physical transactions and is expected to, over time, result in more use of the electronic media in the delivery of Government services. These transactions are expected to move from mere downloads to submissions of information and documents, hence increase the need for secured transactions and authentication of documents. For example, as shown by the implementation of e-Filing by the Internal Revenue Department, Government applications have the potential of stimulating demand for digital certificates. Further the Government has launched the 'mySMS' platform as the gateway for Government services via mobile phones which has the potential to progress from information based services to transaction type services requiring authentication.

The Commission continued in its efforts for the development of mobile banking in the country with research and testing using different technologies including NFC, web and mobile PKI eco-systems. With the ever increasing demands for mobile services, mobile commerce using PKI eco-system is set to be the next big wave as we move towards a cashless society.

The market for digital signature remains small. Both digital signature certifying companies, MSC Trustgate Sdn Bhd and Digicert Sdn Bhd, posted combined revenue of RM23.7 million in 2009. This market segment registered a negative growth of 22.8 per cent or RM7 million in revenues from the year 2008.

Protecting the Consumer

At the same time that the broadband infrastructure is built and deployed, the content and end-user applications are further developed and enhanced, we have also turned our attention towards the end-users, the consumers of broadband to ensure that their rights are not neglected. In fact, our focus of attention is on all communications and multimedia services to ensure that consumers have the opportunity and access to competitive prices, choice of products and services, quality of services, suitable broadcast content including benefits from initiatives to overcome the digital divide that is provided by the Universal Services Provision (USP) programme.

In this regard the consumer protection provision in the CMA is designed to promote and protect consumer interests in the use of communications and multimedia services. Our aim is to promote industry responsiveness to consumer requirements, consumer confidence in service quality and deliverables and affordability of services.

In achieving these objectives, several mechanisms have been put in place to protect the consumer including mandatory standards of quality of services, required applications services, consumer and complaints dispute resolution, rate regulation and many more. For example, with the recent increase in wireless broadband subscriptions, the Government needed to impose quality standards on wireless broadband service to ensure consumers are protected and to impose high standards from service providers. Hence in 2009, the Commission initiated a public inquiry process to gather feedback and comments from the general public in developing the mandatory standards for quality of service for wireless broadband access.

The SKMM Consumer Complaints Bureau handles complaints ranging from communications services such as telephony, mobile services, broadcasting, Internet, postal and digital signature. In 2009, the Bureau received a total of 6,178 complaints, a 44 per cent increase from 2008. From the total of complaints received, it can be seen that 82 per cent were regarding the service provider delivery and quality of service. The remaining 12 per cent of complaints were related to content, spectrum interference, telecommunication structures and radiation, illegal installation of TV parabolic dish and cybercrimes.

As surmised, with more and more consumers subscribing to broadband and 3G services, the most frequent complaints are relating to poor Internet connection/speed and cellular services, followed by Pay TV services.

Based on the analysis of the complaints received will allow the Commission to take the necessary action based on the consumer protection activities and the CMA 1998.

To complement the Mandatory Standards for Quality of Services (QoS) and to ascertain and monitor the level of satisfaction of consumers the Commission also conducts regular consumer satisfaction survey which results in a consumer satisfaction index on key consumer service issues. The results of the survey presents an insight into the consumers' perceived level of quality of the services offered by the various services providers in both the urban and rural areas. The findings of the survey are shared with the services providers who are required to implement improvement action in areas that customers are not satisfied with.

Enforcement in the Age of the New Media

As the nation becomes more and more connected, and benefit from broadband facilities and services is made available to the Malaysian consumer, there will those who take advantage to misuse, abuse or break the laws using communication and multimedia facilities. Whilst the Government encourage the beneficial use of broadband for the people, it views seriously the negative use of the Internet which jeopardize the social and ethical values of the nation, national security and ignorance of the laws of the land.

In 2009, the Commission had taken steps to strengthen its monitoring and enforcement activities by consolidating the Content Regulation, Network Security, Aduan SKMM and Enforcement Divisions into a single Monitoring and Enforcement Division. With a dedicated and enlarged team focused on monitoring and enforcement, will help ensure the rights of the licensees, investors, consumers and the public are always protected and confidence in the communications and multimedia industry are maintained at all times.

The development of new media services and on-line media has prompted a shift in new media regulation. The proliferation of social media on-line has provided the on-line public and the masses with the applications and tools to create their own content, so much so that social media and user generated content are ever increasing its share of Internet traffic and its reach is definitely global. However, as in the real world, criminal elements do lurk in the Internet. Cyber threats have become reality.

Traditional statutory regulation and its legal framework, especially in its practical application, is no longer able to adequately take on the tasks of ensuring network security, consumer protection and quality of content.

Realising that the public is increasingly shifting towards the new media and on-line services and cyber threats are on the rise, the Commission has taken the responsibility to provide a proactive security platform to reduce any negative impact from the communications and multimedia network. The SKMM Network Security Centre (SNSC) was established to monitor malicious payloads and cyber attacks over the Malaysian Internet traffic. Any detection of threats such as Phishing threats would be followed by advisories to all critical network information infrastructure owners and further assistance to mitigate the threats.

The SNSC serves like a national Internet network thermometer to provide overall understanding of macro cyber threat level. The work has the involvement and the co-operation of both public and private sectors stakeholders. SNSC works closely with other Malaysian enforcement agencies to prevent misuse of network facilities, network service, application service and content application service. To date, the Commission has taken enforcement actions under sections 211 and 233 of the CMA 1998, whilst at the ASEAN level the SNSC through the National Security Council participated in various collaborative activities in detecting and mitigating cyber attacks.

Through the SNSC, the Commission also collaborated with various parties to raise public awareness on network threats and ensure a reliable and secure network for the public beginning with the establishment of a SKMM Anti-Phishing portal in 2008. In early 2009, SKMM began a cyber security portal through the Commission's website to engage users in cyber security issues. The portal contains information on network security issues for both technical and non-technical audiences towards securing themselves against cyber threats.

The portal came at a fitting time, as the World Telecommunications and Information Society Day (WTISD) theme for 2009 was for the promotion of "Protection of Children on the Internet". The Commission with the Ministry and industry undertook an awareness campaign to educate and propagate to the public on the potential cyber threats and tips for parents to protect their children when they are on-line. This was coupled with the "Generasi Digital: Budi Bahasa Budaya Kita" Campaign which sought to educate and promote good on-line ethics and practices and the correct use of technology to children and the younger population of the nation.

Other network and cyber security efforts included the completion of the strategic study and draft of the Spam control law which is pending approval from the Ministry and tabling to Parliament in 2010.

To the general public the Commission realised that the public must participate and be involved in efforts to regulate content and cyber security. Self-regulation has become a vital component in our regulatory approach, co-existing and complementing statutory regulations. The Commission sent a strong message that what is done wrong or unlawful in the real world is as wrong or unlawful in the virtual world or using any communication or media channels.

It cannot be emphasised too much how important public participation is in assisting to enforce cyber and content regulation. As such, the Commission with the Communications and Multimedia Content Forum (CMCF) collaborates to generate and enhance public awareness and education on content policies, codes and standards, as well as encourage public complaints and engagement so as to allow the Commission or other relevant authority to take the necessary action.

With the help of the public, consumers and stakeholders, the Commission was able to act and investigate on the complaints or reports received on various offences relating to communications and multimedia. The Commission takes enforcement action in cases of violation to compliance requirements in respect of the laws under its jurisdiction, namely the CMA 1998, the Postal Services Act (PSA) 1991 and the Digital Signature Act 1997.

In 2009, there was a significant increase in the number of reports received by SKMM for enforcement actions under the CMA and the PSA. A total of 352 cases were investigated by the Commission for various offenses under the CMA and 4 cases under the PSA, including 48 non-compliance cases by licensees. Some of these cases were found to be preventable and in efforts to prevent reoccurrence, the Commission undertook to hold capacity building compliance seminars for the industry in 2009.

Dynamism in 2010

We will indeed face many challenges in 2010 as we race towards achieving the 50 percent broadband penetration rate target. All eyes are on the Commission and industry to reach the finishing line and reach it with flourish. Together as a united 1Malaysia team and with support of the Government, I am confident we will succeed in our goals.

Lastly, it must be said that 2010, is not the end but a stepping stone towards progress. The dynamism of the industry have already forced us to set our sights well into the 21st century.

TAN SRI KHALID RAMLI
Chairman

Commission Members

TAN SRI KHALID RAMLI

Tan Sri Khalid Ramli, was appointed Chairman of the Malaysian Communications and Multimedia Commission (SKMM) on 16 October 2009.

Tan Sri was previously the Director General of Implementation Coordination Unit (ICU) of the Prime Minister's Department. Immediately before his appointment at the ICU, Tan Sri Khalid had served as the Secretary of the Penang State Government.

Tan Sri has served as a Public Administrator in various capacities since 1972. He was formerly a member of Pemudah and Co-Chairman of the Efficiency Working Group. He was also previously a Board Member of Petronas.

Tan Sri holds a Bachelor's Degree (Honours) of Arts from University of Malaya and a Masters of Public Administration from the University of Southern California, United States of America.

DATUK WIRA KAMARUDDIN SIARAF

Datuk Wira Kamaruddin Siaraf's was appointed as a Commission Member on 10 April 2009 for a period of two years.

Datuk Wira Kamaruddin is the Secretary General of the Ministry of Information Communication and Culture Malaysia. Previously, he was the Secretary General of the Ministry of Information.

DATUK MOHD ZAIN MOHD DOM

Datuk Mohd Zain holds a Bachelor's degree in Sociology. He started his career in the diplomatic service in 1976 and has, amongst others, held the positions of Assistant Under Secretary and Principal Assistant Director of the International Trade Division, Assistant Permanent Malaysian Representative to Geneva and Deputy Permanent Representative to the United Nations, Geneva (International Trade Division). Other notable appointments include being the Minister Counsellor for Economic Affairs of both the Malaysian Permanent Representative Office to the European Union (EU), Brussels and the Malaysian Permanent Representative Office to the World Trade Organisation (WTO), Geneva. He was the Lead Negotiator for the Malaysia-Australia Free Trade Agreement (FTA), the Malaysia-New Zealand FTA as well as the ASEAN-Australia-New Zealand FTA negotiations in 2005 and 2006. Datuk Mohd. Zain was appointed Secretary General of Ministry of Domestic Trade and Consumer Affairs on 6 February 2007.

He was appointed Chairman of the Companies Commission of Malaysia on 1 March 2007. He is a Member of MyIPO Board since 6 February 2007 and re-appointed as a Member of the Malaysian Communications and Multimedia Commission on 31 March 2010.

DATO' MADINAH MOHAMED

Dato' Madinah Mohamad was officially appointed as Secretary General, Ministry of Science, Technology and Innovation, Malaysia (MOSTI) on 22 April 2009. As the Secretary General of the Ministry, she is very much involved in the administration of MOSTI and directly in charge of the development of science, technology and innovation in Malaysia. The drafting and formation of new policies with respect to innovation is one of her main priorities. The implementation and progress of related policies which is already endorsed by the Government, such as Biotechnology Policy, IT Policy and National Science and Technology Policy are also within her purview.

She graduated with a Bachelor's degree in Political Science from Universiti Sains Malaysia and a Master's degree in Human Resource Development from Universiti Putra Malaysia. She began her career as an Administrative and Diplomatic Officer in 1981 with the Ministry of Foreign Affairs. Prior to her current position, Dato' Madinah has had vast working experience in various Government agencies such as the Public Service Department, the Ministry of National and Rural Development, the Ministry of Works, and the National Unity and Integration Department.

Dato' Madinah Mohamed was appointed as a Commission Member on 31 March 2010.

DATUK HJ MD AFENDI HAMDAN

Datuk Hj Md Afendi Hamdan born in Sandakan, Sabah, has been appointed as a Commission Member of the Malaysian Communications and Multimedia Commission (SKMM) effective from 29 December 2009 for a period of two years.

He graduated from the University of Wisconsin, Steven Point, USA, in 1989 with a Bachelor of Science in Business Administration with a minor in Management Information System (Computer Science). Previously a banker, he subsequently ventured into the business world as an entrepreneur in 1992.

In 1995, he was appointed as the Deputy Chairman of Sabah Tourism by Yang Di-Pertua Negeri Sabah until 1998. In 1996, he succeeded in setting up the Dewan Perniagaan Melayu Negeri Sabah and was appointed as the Yang DiPertua for the first term to ensure the smooth running of the organisation until 1998.

Later in 2007, he was appointed as a Director of Borneo Aqua Harvest Berhad, a public-listed company on Mesdaq Kuala Lumpur, dealing in fish rearing and marine development. He is also an IT and film enthusiast who strongly believes in the development of content and technology. In 2008, he was appointed as one of the directors on the Board of Directors in FINAS (National Film Development Corporation Malaysia) and contributed substantially in the content development industry. He was later appointed as one of the Board Members for Universiti Teknikal MARA (UNITEK) in 2009.

DATO' DR. GAN KHUAN POH

Dato' Dr Gan Khuan Poh is currently the Chairman of Lintramax (M) Sdn Bhd and Silver Bird Group Berhad and sits on the Board of Directors of Prudential Assurance Malaysia Berhad, Time Engineering Berhad and DagangNet Technologies Sdn Bhd. He is also a member of the Executive Council of the Malaysian Economic Association after being the immediate past President of the Association, a member of the Tenaga National Berhad Economic Council and the Senior Economic Research Fellow of the Asian Strategic and Leadership Institute.

He served in the public service as an Administrative and Diplomatic Service Officer at various positions from the District level to the Federal Government especially in the Prime Minister's Department, at the Development Administration Unit, the Implementation Co-ordination Unit and the Economic Planning Unit (EPU) before retiring as the Senior Director responsible for Macroeconomics in the EPU. Then he became the Group Managing Director of the Pilecon Group of Companies. He joined Universiti Kebangsaan Malaysia as a Professor holding the post of a Senior Fellow of Institut Kajian Malaysia dan Antarabangsa (IKMAS). He holds a Ph.D.(Economics) and an M.A.(Economics) from Duke University, USA, a M.B.A.(Finance) from Cornell University, USA and B.A.(Honours) in Business Economics from Universiti Malaya.

Dato' Dr. Gan Khuan Poh was reappointed as a Commission Member on 1 April 2008.

DATUK IDRIS ABDULLAH

Datuk Idris Abdullah, holds a First Class LLB (Hons) degree from the University of Malaya. He is a Senior Partner of Idris and Company Advocates since 1989, a Sarawak-based legal firm. He began his career in 1981 as a resident lawyer at Ting and Company Advocates in Sibu, Sarawak. Between 1982 and 1985, he served as an in-house Legal Advisor to a Sarawakian Group of Companies with diverse business interests. During his tenure, he was also involved in advising the group's activities in human capital development, corporate affairs and corporate finance.

Datuk Idris Abdullah was also a shareholder of many Bumiputra companies based in Sibu, Sarawak. Currently, he is the Chairman/Director of Magnus Energy Group Ltd., which is listed in the Republic of Singapore, with interests in oil and gas in China and Australia, and development of coal mining activities in Indonesia. He was appointed a Director and the Chairman of Kuantan Flourmills Bhd, from October 2002 until September 2005 and acts as an advisor to some Sarawak companies involved in construction and building, motor vehicle trading, recreation club and education. Datuk Idris is also a Member of the Companies Commission, having been reappointed a third term on 16 April 2009. As an active Member of the Companies Commission, Datuk Idris has been appointed a Member of the Audit Committee and Member of the advisory panel of the Companies Commission Training Academy (COMTRAC).

Datuk Idris Abdullah was appointed as a Commission Member on 26 May 2008.

DATO' MOHAMED SHARIL MOHAMED TARMIZI

Dato' Mohamed Sharil Mohamed Tarmizi was appointed as Chief Operating Officer (COO) of the Malaysian Communications and Multimedia Commission (SKMM) on 16 June 2008. Dato' Mohamed Sharil brings with him a considerable number of years of experience in the legal field, communications and multimedia industry, as well as experience in the financial advisory and strategy consulting areas. Dato' Mohamed Sharil was the Executive Director and Head of Strategy in BinaFikir Sdn Bhd, a financial advisory and strategy consulting firm, prior to being invited to join SKMM as the COO.

He first joined SKMM in May 2000 and left for BinaFikir after serving SKMM for a period of six years. His last position in SKMM was the General Manager and Senior Advisor in the Office of the Chairman. In the international arena, Dato' Mohamed Sharil has worked closely with the main international organisations in the Internet field, such as the Internet Corporation of Assigned Names and Numbers (ICANN), where he was the immediate past Chairman of the Government Advisory Committee (GAC) and a board member of ICANN for four years. Dato' Mohamed Sharil holds a Bachelor's Degree in Law from University College of Wales, Aberystwyth and qualified as a Barrister from Gray's Inn, England and Wales (UK).

In recognition of his in-depth knowledge of the communications and multimedia sector both locally and globally, he was re-appointed as a Commission Member of SKMM from 1 May 2008 and he continues to serve as a Commission Member to date.

PUAN NURAFFIZA AHMAD

Nuraffiza Ahmad is the Secretary to the Commission. Prior to assuming this position in 2001, she was in legal practice before serving the Johor Corporation as a legal adviser at its investment office in Jakarta. She holds an Bachelor of Laws (Honours) degree and Masters in Law from the International Islamic University of Malaysia. She has been called to the Malaysian Bar and was admitted as a Syariah lawyer in the Federal Territory as well as Negeri Sembilan states.

Executive Committee

Tan Sri Khalid Ramli
Chairman

Dato' Mohamed Sharil Mohamed Tarmizi
Chief Operating Officer

Dato' Jailani Johari
Chief Regulatory & Supervisory Officer

Toh Swee Hoe
Chief Planning & Development Officer

Zamani Zakariah
Senior Director, MyICMS Division

Amarjit Singh
Senior Director, Licensing, Economic Regulation & Compliance Division

Ruzlan Zabidi
Senior Director, Management Services Division

Mohd Ali Hanafiah
Senior Director, Technology, Standards & Network Division

Tengku Zaib Raja Ahmad
Senior Director, Human Capital Management Division

Nik Abdul Aziz Nik Yaacob
Senior Director, Strategic Information System Division

Norizan Baharin
Acting Senior Director, Resource Assignment & Management Division

Eneng Faridah Iskandar
Acting Senior Director, Monitoring & Enforcement Division

Nur Sulyna Abdullah
Director, International Affairs Department

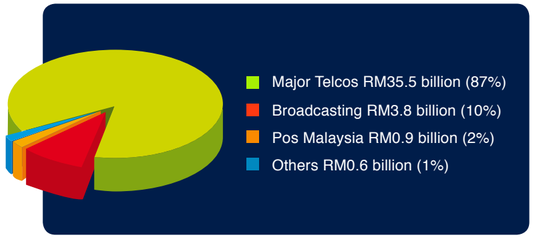
Zeti Marziana Muhamed
Director, Corporate Communications Department

Rizal Abdul Malek
Special Officer to Chairman

Nuraffiza Ahmad
Secretary to the Commission, Legal & Secretarial Department

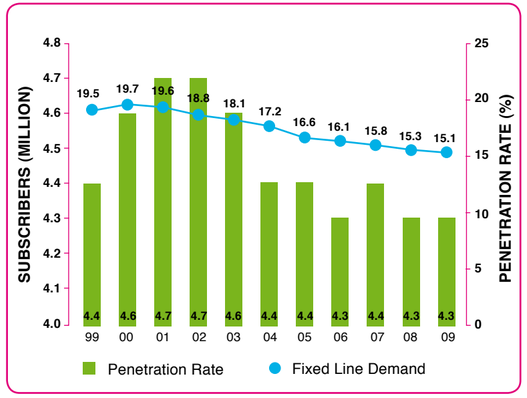
Statistics on Communications & Multimedia as at end of 2009

1 Communications and Multimedia Revenue Market Share by Sector 2009 (RM41 billion)



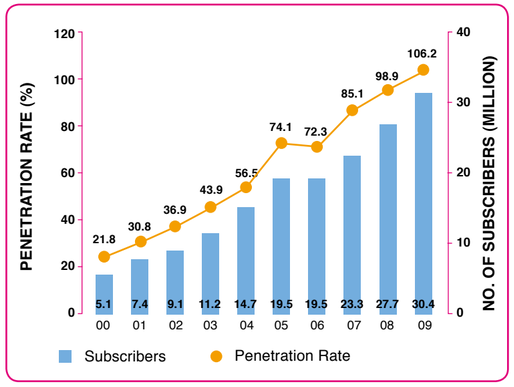
Source: Industry, SKMM

2 Fixed Line DEL Subscriptions and Penetration Rate



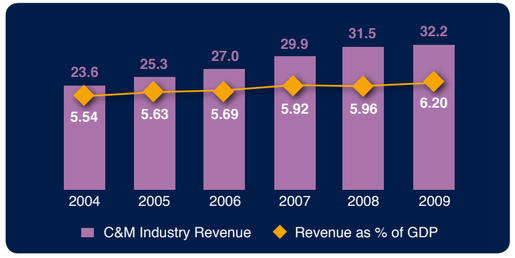
Source: Industry, SKMM

3 Penetration Rate and Cellular Mobile Subscribers (2001-2009)



Source: Industry, SKMM

4 Communications & Multimedia Industry Revenue vs GDP



6 Internet access through handphone

	Percentage Share of Handphone User Base (%)			
	2006	2007	2008	2009
Yes	18.4	13.7	11.5	16.3
No	81.6	86.3	88.5	83.7

Source: SKMM Handphone Users Survey

7 Generational group among handphone users

Age	Percentage Share of Handphone User Base (%)					
	2004	2005	2006	2007	2008	2009
Pre teens & teens (up to 19)	12.3	13.1	14.9	14.5	24.4	14.7
Adults (20-49)	78.7	78.2	76	74.9	62.5	73.4
Seniors (50+)	9	8.7	9.1	10.5	13.1	11.8

Source: SKMM Handphone Users Survey

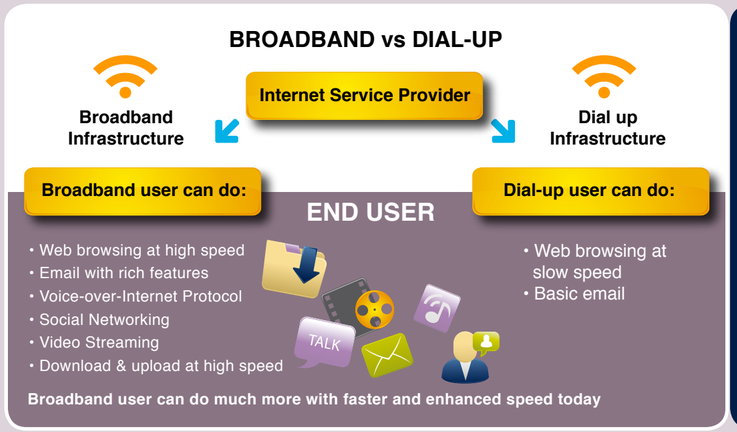
8 Broadband penetration rate per 100 households by state

State	2009
Johor	29.3
Kedah	17.6
Kelantan	11.7
Melaka	30.0
Negeri Sembilan	26.4
Pahang	17.4
Pulau Pinang	43.1
Perak	22.1
Perlis	17.4
Selangor	49.1
Terengganu	17.6
Sabah	14.5
Sarawak	19.3
W. P. Kuala Lumpur	88.9
W.P. Labuan	28.7
Malaysia	**31.7**

Source: SKMM

Broadband Explained - What is Broadband?

The term “Broadband”, is a short form for “broad bandwidth”. This refers to faster and high capacity Internet access compared to the traditional dial-up access. With broadband transforming our lives today, this means that the era of slow Internet connections (dial-up) which made us wait for everything is now over.



The advantages of Broadband take-up:

- increase competitiveness in all market segments,
- stimulate economic growth by creating new jobs and opportunities,
- reduce unnecessary travel and carbon footprints,
- facilitate distance learning, and
- ultimately towards bridging the digital divide.

Broadband will bring major technical evolution that can influence and change the way we do our work and experience entertainment. It is as if a huge information ‘pipeline’ is connected directly to our homes and workplace where it delivers unlimited information and services for our purposes.

Deciphering Broadband Speeds

‘Speeds’ in reference to Internet usage is interpreted in simple terms ‘how long you have to wait to get something downloaded’.

Internet Connection

Anyone accessing to the Internet is a two way communication. It is about receiving or sending data from or to the Internet.

Download Speed ▸ The speed at which data is sent from the Internet to user’s computer

Upload Speed ▸ The speed at which data is sent from user’s computer to the Internet

Measurement of Broadband Connection Speed

one kilobit per second (Kbps)	=	1000 bits per second (bps)
one megabit per second (Mbps)	=	1000 Kbps or one million bps
one gigabit per second (Gbps)	=	1000 Mbps or one million Kbps
one terabit per second (Tbps)	=	1000 Gbps or one million Mbps

Sample Application and Download Time

Type of File	Time to Download	
High-quality movie download	75 mins @ 2 Mbps	19 mins @ 8 Mbps
	8 mins @ 20 Mbps	3 mins @ 50 Mbps
Movie downloaded, game demo	37 mins @ 2 Mbps	9 mins @ 8 Mbps
	4 mins @ 20 Mbps	2 mins @ 50 Mbps
A 30-second video clip	1 min @ 2 Mbps	15 secs @ 8 Mbps
	8 secs @ 20 Mbps	2 secs @ 50 Mbps
A high quality 5-minute MP3 music file	30 secs @ 2 Mbps	10 secs @ 8 Mbps
	4 secs @ 20 Mbps	1 sec @ 50 Mbps

The download speed stated in technical terms is for example 200 Kbps (Kilobits per second) - the higher the speed means more and faster downloads within a period of time.
Sometimes government authorities such as the US Federal Communications Commission defines broadband services as data transmission with speeds exceeding 200 Kbps or 200,000 bps in at least one direction that is upload (from our computer to Internet) and download (from Internet to our computer).
ITU (International Telecommunication Union) is an agency of the United Nations which regulates information and technology issues defines broadband as Internet connections that range from 5 times to 2000 times faster than earlier Internet dial-up technologies.

Why is Broadband Essential?

With broadband capability to access wide range of resources, services and products, it can ultimately enhance our lives in many ways.

Education and Culture	Broadband is a channel to overcome geographical and financial barriers to provide Internet access to unserved and underserved groups so that education, cultural and ICT knowledge are no longer separated by geographical and economic factors.
Telehealth and Telemedicine	Broadband can facilitate provision of medical care to unserved and underserved population through remote diagnosis, treatment, monitoring, and consultations with specialists.
Communications Services for People with Disabilities	Broadband permits users of Telecommunications Relay Services to use Video Relay Services to communicate more easily, quickly, and expressively with voice telephone users.
Public Safety and Homeland Security	Broadband can help protect the public by facilitating and promoting public safety information and procedures, including, but not limited to: • Early warning/public alert systems and disaster preparation programs. • Remote security monitoring and real time security background checks. • Backup systems for public safety communications networks.
Broadband Communication Services	Broadband provides access to new telecommunications technologies such as Voice Over Internet Protocol (VoIP) allowing voice communications using the Internet.
e-Government	Electronic government can help streamline people’s interaction with government agencies, and provide information about government policies, procedures, benefits, and programs.

Various Types of Broadband Technologies

Broadband is supplied not based on one technology only. There are many types of broadband technologies available in the market and under development. The table below shows some broadband technologies and the acronyms being used for a broadband connection.

Mobile WiMAX	Mobile Worldwide Interoperability for Microwave Access
Fixed WiMAX	Fixed Worldwide Interoperability for Microwave Access
ADSL	Asymmetric Digital Subscriber Line
SDSL	Symmetric Digital Subscriber Line
VDSL2	Very-high-speed Digital Subscriber Line 2
HSPA	High Speed Packet Access
HSPA+	High Speed Packet Access Plus
CDMA2000 1X EV-DO	A telecommunications standard for the wireless transmission of data
LTE	Long Term Evolution

Broadband Characteristics

- Broadband service provides higher speed of data transmission—so activities such as downloading songs can now be done in seconds.
- Broadband provides access to the high quality Internet services such as streaming media, VoIP (Internet phone), gaming, and interactive services.
- Broadband is always on—there is no need to reconnect to the network after logging off and is automatically available when powered up.
- Access everywhere with mobile broadband.

The New Economic Model (NEM) emphasises on the aspects of creativity and innovation to generate a high income economy through broadband since it can support industries to compete regionally and internationally.

01

MyICMS

NATIONAL BROADBAND IMPLEMENTATION

Aknowledging the potential contribution of broadband to the social and economic development of the country and also to Malaysia's Gross Domestic Product (GDP), the Government in July 2007 via the the previous Ministry of Energy, Water and Communications (KTAK) introduced the National Broadband Initiative (NBI) and has since been working on accelerating this important national agenda.

With the reshuffling of the Cabinet and the restructuring of the Ministry in April 2009, the target of 50% household broadband penetration rate by end of the year 2010 continues to be the Key Performance Indicator (KPI) for the Minister of Information Communication and Culture. This means that by the end of 2010, 3.2 million homes should enjoy a wide range of Internet applications through broadband services.

Implementing the National Broadband Initiative (NBI)

The implementation of the broadband strategy that was developed based on a two-pronged approach which focuses on both the demand and supply sides of delivering broadband.

Governance Structure

The Cabinet Committee on Broadband (CCB), that was set up in July 2007 to oversee the planning and implementation of the broadband initiatives at the highest levels in the country is presently chaired by the Deputy Prime Minister, YAB Tan Sri Muhyiddin Yassin. Under the new restructured Ministry, the Committee held its fifth (CCB5) meeting on 14 September 2009 which saw new faces as its members in view of the Cabinet reshuffle in April 2010. This meeting laid out the initiatives to be undertaken by the various stakeholders, which include:

- To consider the take-up of Personal Computer (PC) ownership and cellular phone subscription as supporting indicators for the broadband penetration in Malaysia;
- To expand the backhaul network coverage to other parts of the country as well as improving the quality of service (QoS) especially in the rural areas;
- To introduce an additional indicator to measure the broadband development in the country. One of the measures against other countries is through the Broadband Development Index (Indeks Kemajuan Jalur Lebar), whose parameters are based on the International Telecommunication Union (ITU)'s ICT Development Index (IDI). The target set for Malaysia on this ITU index is to be at the top 40 by 2011;
- To improve end-to-end broadband quality and speed as well as to review broadband costs for improved competitiveness ;
- To make broadband a basic utility through amendments of the Uniform Building By-Laws Act (UBBL); and
- To create more broadband incentives to the public and service providers.

The implementation of the initiatives was steered and monitored by the NBI Steering Committee (SC) which is chaired by the Chief Secretary of KPKK. The Committee met on 7 December 2009 to detail out the action plans in carrying out the decisions of CCB5.

The National Broadband Rollout

The National Broadband rollout is divided into three zones throughout the country, as illustrated in the diagram above:

- Zone 1 consists of high economic impact areas such as the inner Klang Valley and the Iskandar Development region in Johor;
- Zone 2 covers other urban and semi urban areas;
- Zone 3 covers the rural areas.

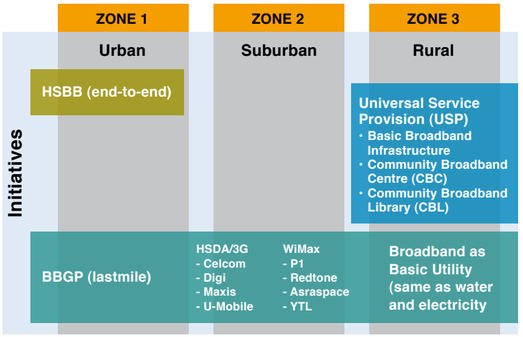
Zone 1 is likely to be featured by multiple broadband technologies such as fibre, ADSL, 3G/HSPA and WiMAX and served simultaneously by various operators. Telekom Malaysia (TM) has entered into a public-private partnership (PPP) with the Government to roll out high speed broadband in excess of 10 Mbps in this Zone. Zone 1 occupants may also opt to access other competitive broadband solutions from other service providers. This zone is aimed to contribute 23% to 25% of the total household penetration.

The National Broadband Implementation envisions private initiatives bringing broadband to Zone 2 areas which cover urban areas outside High Speed Broadband (HSBB) and suburban areas. Zone 2 will be served by the Broadband to General Population (BBGP) multiple services with average speeds of up to 2 Mbps and is targeted to contribute 16% to 18% of the total penetration rate.

Zone 3 comprises rural areas where affordability is low. The rollout of broadband in Zone 3 requires intervention by SKMM using Universal Service Provision (USP) funds. Provision of broadband in these areas includes Basic Telephony (through fixed and mobile network), Community Broadband Libraries (CBL) and Community Broadband Centres (CBC). The cellular coverage in these areas will be widened by building more communication towers funded through the USP funds to facilitate cellular operators to expand their coverage to 97% of the population by 2011.

The above zoning covers the Supply side of the NBI. It is comprehensively illustrated in the following diagramme.

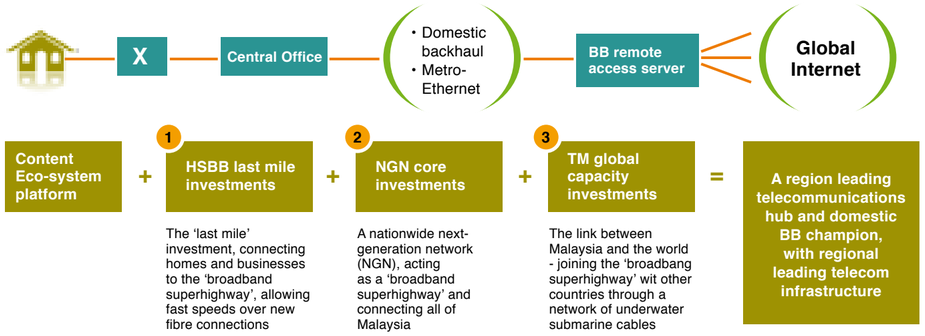
Coverage of National Broadband Implementation



HIGH SPEED BROADBAND (HSBB)

The Public Private Partnership (PPP) between the Government and Telekom Malaysia Berhad (TM) that was signed on 16 September 2008 was followed by the implementation of HSBB network throughout the country.

The rollout covered the network elements architecture as in the following illustration:



On the access network, 1.3 million premises passed will be rolled out involving 95 exchanges. The coverage areas are Inner Klang Valley, industrial areas and Iskandar Malaysia. The technologies that will be used for access network deployment are Fibre to the Home (FTTH), Multi Service Access Node with VDSL2 (MSAN with VDSL2 and MSAN with ADSL2+) and Ethernet-To-The Home (ETTH).

The core network elements comprised Metro-E, Broadband Remote Access Server (BRAS), IP Core, Transmission and Control and Support Systems.

The International Networks elements covers the submarine cables, the International Gateways (IGW) located in Malaysia and the International IP Point of Presence (IP POP) at identified countries. The upgrading of submarine cable system Asia Pacific Cable Network (APCN) 2 was completed in March 2010. The upgrading works and implementation of new submarine cable system is in progress.

BROADBAND FOR GENERAL POPULATION (BBGP)

In ensuring BBGP rollout throughout the country, several initiatives have taken place.

State Tour- State Coordination Meeting with State Government

SKMM works closely with State governments in boosting the broadband takeup in tandem with the ICT agenda and NBI strategy and planning. Since January 2009 SKMM has visited and briefed the State Government agencies and ICT Committee members on each state household penetration target and the implementation strategy for the state according to the State Broadband Framework. A coordination committee was formed to monitor the broadband implementation at state level. The Committee also looked into identifying broadband requirement for the States, coordinate involvement with local authorities in infrastructure rollout and coordinate overall issues of telecommunication infrastructure.

Digital Districts

The Digital District approach taken by Digital Pekan is following the development of other digital district or digital city initiative in other countries such as Digital Guro in Seoul; Kenniswijk in Netherland and Stockholm in Sweden.

The broad focus of this initiative is to develop an information society at the local level, whilst duplicating and spreading the benefits of a digital

lifestyle to other districts, eventually covering all cities and states within Malaysia, hence creating a rippling effect towards the digitalisation of Malaysia.

BROADBAND DEMAND STIMULATION

The demand stimulation addresses 3A levers which includes Awareness, Attractiveness and Affordability. These 3A factors must be able to answer the question "What's in it for me?". Thus, a list of initiatives was outlined for the year 2009 that included National Broadband Campaign, State Broadband Campaign, MyBroadband 2009, tax incentives, low cost PC Bundling Packages and more segmented efforts.

State Broadband Campaign

Regional offices were also instrumental in pushing broadband takeup at states. In 2009 a number of activities were implemented in the states by the regional offices. Those activities by state include awareness talk to government offices on broadband, road shows at districts as well as Community Broadband Centre (CBC) and Community Broadband Library (CBL) launches.

The National Broadband Awareness and Promotion Campaign

Appointment of Communication Agencies

Under the national broadband campaign banner, the government was to launch a nationwide campaign to create awareness on broadband. To ensure a proper campaign is executed, SKMM and KPKK undertook a pitching exercise to appoint a Communication Agency to coordinate the broadband campaign nationwide.

Stakeholders Engagement

In order to relay the message of the National Broadband Campaign, an information pack was prepared for distribution to the stakeholders which include the Chief Editors, journalist and 'bloggers'.

Low Cost PC Bundling

In addressing affordability and to stimulate demand from the public, service providers have been requested to develop an affordable and attractive Computer Bundled Packages. The packages were targeted for low income employees and civil servants.

To facilitate financing the packages, SKMM approached the Employees Provident Fund (KWSP) to propose a financing mechanism via an EPF withdrawal scheme for the lower income group.

In addition, SKMM also facilitated for the wireless service providers for a financial institution to include the Broadband Packages as one of the options for their Personal Loan Product.

Innovative Packages - IDOLA Netbook

One of TM's undertakings under the HSBB Project is to work with the Government or potential technology recipient identified by the Government in formulating a broadband package with low cost internet access device.

As such, TM is working with SKMM and the Ministry of Science, Technology and Innovation through MIMOS and its technology recipient to bundle the locally manufactured netbook iDOLA with TM's Broadband with PC (BBPC) programme. The iDOLA netbook costs below RM1000 and the target group is the low income group in the Universal Service Provision (USP) areas. The programme is expected to be ready by early 2010.

Guideline for Communication Infrastructure for Institute of Higher Learning

In order to improve the broadband accessibility at the institutions of higher learning (IHL), SKMM approached the Malaysian Qualification Agency (MQA) and the Ministry of Higher Education (MOHE) to develop a standard guideline to be adopted by the IPTs nationwide to complement and to enrich the communication network infrastructure in IHLs, similar to the implementation at universities in other developed nation. It was also proposed that this guideline be embedded to the MQA's accreditation criteria.

Broadband Initiatives at Schools

To promote broadband at schools, TM has adopted a number of schools for their E-School programme. Under this programme, TM outlined a number of awareness programmes for each school to promote broadband usage among students, parents and teachers.

Content and Application

ICON or Integrated Content Development Task Force was created to develop content in a concerted manner. ICON is chaired by the Chief Secretary of the Government and members include both public and private entities. MAMPU and MDeC are joint secretariat to ICON.

Since its establishment, the Committee has been active in facilitating development of applications and monitoring content development for the country. Among the issues discussed and considered by ICON were online transaction safety, government online applications and the push for affordable Internet hosting for the business sector.

Proposals for Budget 2010

In addition to the public sector initiatives, a few proposals for Budget 2010 and for the Stimulus Package 2 have been forwarded to the Ministry of Finance (MOF). They were:

- Subsidised broadband bundled packages for low-income group
- Tax rebate/relief for broadband subscription
- Individual tax relief for purchase of Internet-enabled devices other than personal computers
- Sales tax abolishment for Internet-enabled devices
- Free Internet access at public wi-fi hot spots funded by the government
- Tax relief for service providers who provide services in rural areas or areas without coverage
- Broadband access as a basic utility for housing developments projects

ACHIEVEMENTS FOR 2009

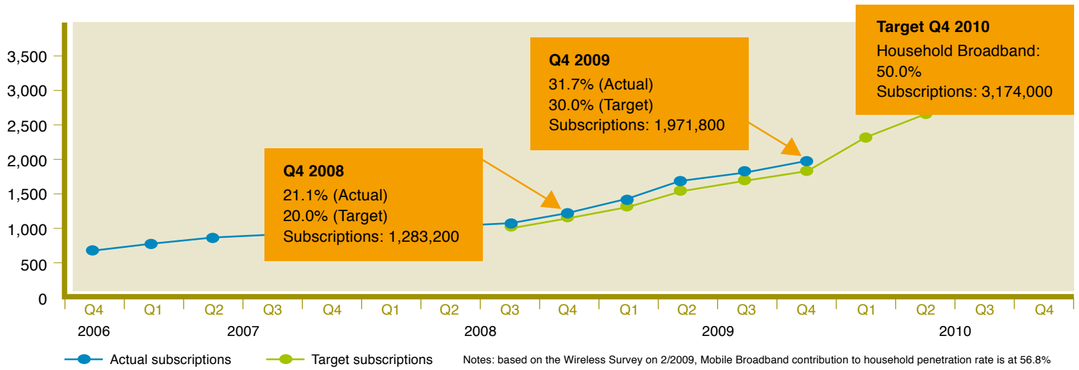
Measurement and Indicators for Broadband Take-up

The broadband take-up rate is being monitored on the weekly basis with the data supplied by the broadband service providers. It allows the service providers to closely assess their achievement with respect to the national penetration rate. This results in a sense of competition between the service providers to offer better and effective services.

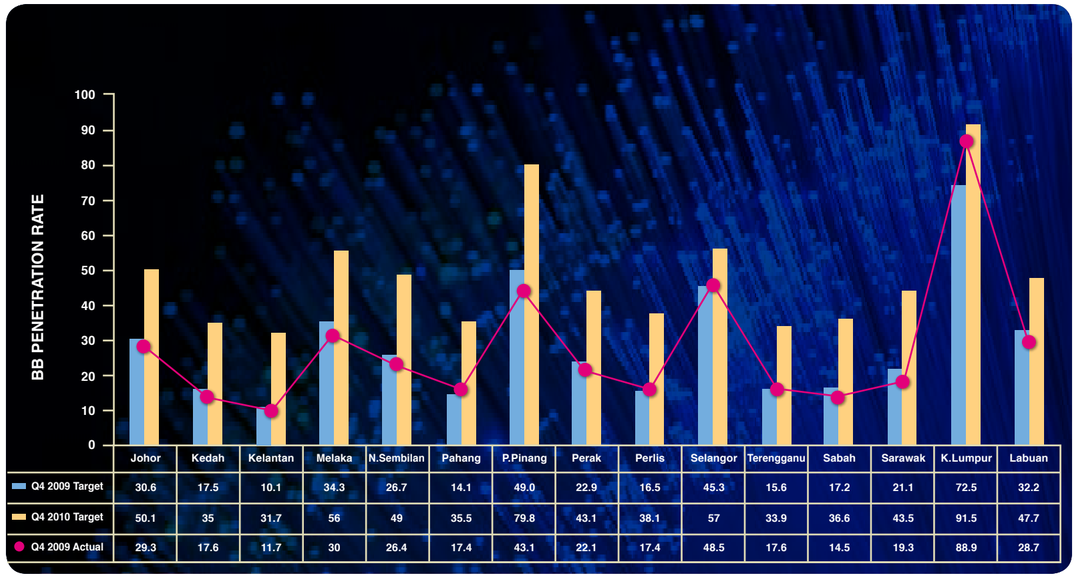
In 2008, SKMM and the wireless broadband operators worked together under the Broadband Takeup Committee to undertake a survey on Broadband Takeup. With effect from Quarter 4, 2009, mobile broadband substitution on fixed lines for household had been factored at 56.8%. This means that more households are using mobile broadband as the only tool to access to Internet at home as compared to 39.4% in 2008.

For 2009, Malaysia has indeed exceeded the 30% household penetration target by achieving 31.7% household penetration rate as of 31 December 2009.

The figure below illustrates the actual household penetration for the country compared to the target set.



The broadband household penetration rate at each state as of 31 Dec 2009:



	Johor	Kedah	Kelantan	Melaka	N.Sembilan	Pahang	P.Pinang	Perak	Perlis	Selangor	Terengganu	Sabah	Sarawak	K.Lumpur	Labuan
Q4 2009 Target	30.6	17.5	10.1	34.3	26.7	14.1	49.0	22.9	16.5	45.3	15.6	17.2	21.1	72.5	32.2
Q4 2010 Target	50.1	35	31.7	56	49	35.5	79.8	43.1	38.1	57	33.9	36.6	43.5	91.5	47.7
Q4 2009 Actual	29.3	17.6	11.7	30	26.4	17.4	43.1	22.1	17.4	48.5	17.6	14.5	19.3	88.9	28.7

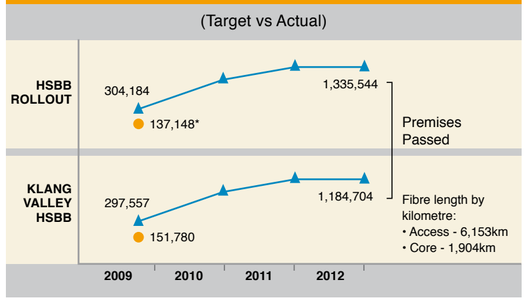
HIGH SPEED BROADBAND (HSBB) INFRASTRUCTURE ROLLOUT

The nation has been witnessing efforts from TM on the HSBB infrastructure rollout that is closely monitored by SKMM. By end of Quarter 4, 2009, a total amount of RM1.89 billion has been invested to roll out fibre optic infrastructure for the Fibre-To-The-Home (FTTH) and Very High Speed Digital Subscriber Line 2 (VDSL2) services at the Klang Valley and Penang Industrial Zone. By end of 2009, a total of 8,093km optical fibre cable have been installed nationwide.

At the end of 2009, 22 exchanges have been installed with Metro-E nodes and the implementation in other areas are in progress. The Broadband Remote Access Servers (BRAS) were installed at five exchanges in order to serve HSBB customers and the capacity will be increased at end of 2010. The IP Core installation involves four (4) super cores and eight (8) regional cores. All the super core and regional core networks have been installed and the capacity will be increased based on the network requirements.

The HSBB ground breaking ceremony was held on 29 June 2009 in Taman Tun Dr. Ismail. It marked the laying works of HSBB infrastructure by TM. On 24 March 2010, TM launched the HSBB services at four exchanges - Bangsar, Taman Tun Dr Ismail, Shah Alam and Subang Jaya.

HSBB ROLLOUT, KLANG VALLEY AND NATIONWIDE



* Total of premises passed as of 31 Dec 2009

Under the HSBB initiative, TM is to undertake several projects to stimulate demands for Broadband. Among others:

- Content Platform Development.
  The elements comprised of Automation & Service Delivery, Content Technology Platform/ Media Centre, Content Management, Resource Directory, Content Aggregation, Online Content Development and Content Delivery & Distribution. The element of Automation & Service Delivery through MyAppSentral and MyBizpoint were completed in June 2009.
- Ensure that institutions of higher learning (IHLs) are within HSBB coverage areas. For IHLs which are outside the coverage area, the rollout is expected to complete by 2012.
- Ensure that the government offices are within HSBB coverage areas. Of 2,751 government offices, 775 are inside the coverage area, and another 1,976 are outside the coverage area. As at the end of 2009, 94 government offices within the vicinity of Bangsar, Shah Alam, Subang Jaya and TTDI have been included in the HSBB coverage area.
- Upgrade all exchanges to be basic-enabled for Broadband for General Public (BBGP). Currently, 780 exchanges have been enabled for basic broadband service. Over 2.5million DSL port have been installed with 60% utilisation.
- To develop new telecentres in non-USP areas.
  31 new telecentres were identified to be developed for the Ministry of Youth and Sport Rakan Muda Cyber Centre.
- To formulate low cost broadband packaging
  TM is expected to formulate broadband bundling package with low cost internet access device. They are currently working with MIMOS to bundle in MIMOS's PC with their services.
- Broadband promotion and awareness
  To expose the public to the look-and-feel experience of living in high speed digital lifestyle, TM has established a Digital Home model located at the lobby of Menara TM in Kuala Lumpur. The Digital Home has attracted the public from all over the country including school children to visit and experience the new lifestyle at the Digital Home.

  Personal computers (PCs) have been supplied and Local Area Network (LAN) was upgraded for SMK Pekan, Pahang, and SMK Dato' Undang Musa Al-Haj, Negeri Sembilan. Wi-fi coverage and services were installed in Kuala Klawang for public use. At the same time, a number of awareness programmes were conducted at E-Schools such as online talentime contest at Sekolah Kebangsaan Taman Tun Dr. Ismail.

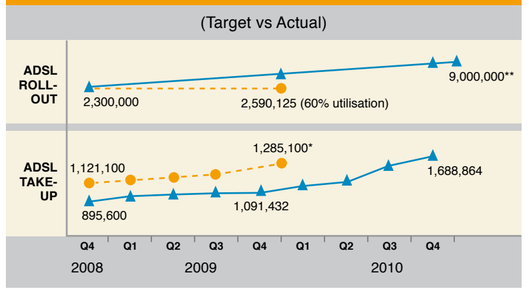
  In addition, TM has also conducted ICT and broadband programme and roadshows in FELDA schemes, schools, shopping malls, and also at each state ICT fairs in its effort to create awareness on the benefit of broadband.

BROADBAND FOR GENERAL PUBLIC (BBGP)

The general public may now enjoy broadband services such as FTTH, VDSL, Fixed Wireless (FW), WiMax, IBurst and EV-DO (Evolution Data Only). Currently, the demand for fixed broadband supercedes wireless broadband with more than 57% of subscription going for ADSL technology. It is followed by mobile services of 3G/HSDPA which stands at 35% and WiMax services at 5%. The other technologies cover the rest of the total subscription.

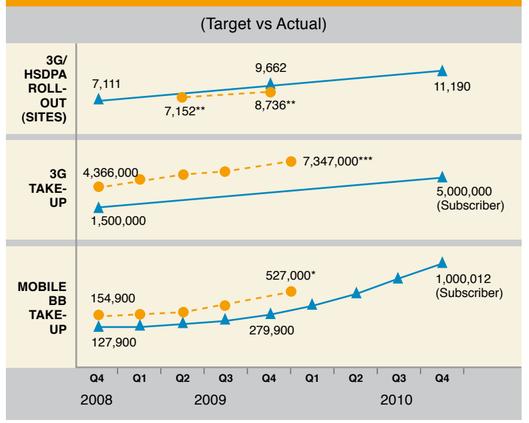
The following diagrams illustrate the rollout and takeup progress of ADSL, Wimax and mobile broadband services in the country:

ADSL ROLLOUT AND TAKEUP



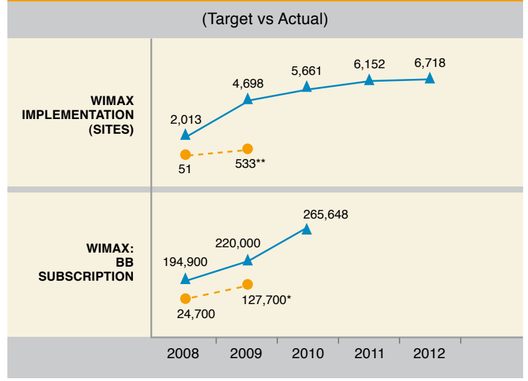
* Total of household subscriptions are as of 31 Dec 2009
** Total 9,000,000 DELs capacity

MOBILE BROADBAND ROLLOUT AND TAKEUP



* Total number of subscription for mobile BB as of 31 Dec 2009
** Total number of actual sites as of 31 Dec 2009
** Total number of 3G subscribers are of 31 Dec 2009

WIMAX ROLLOUT AND TAKEUP



* Total number of subscription as of 31 Dec 2009
** Total number of sites as of 31 Dec 2009

ENDORSEMENT OF INCENTIVES TO PROMOTE BROADBAND TAKE-UP

Government Incentives

A number of proposals for tax incentives and initiatives which were forwarded to MOF have been approved. Tax deductions may also be given to employers as benefits in the form of purchase of new computers and payment of broadband subscription fees for employees. Concurrently, this is a tax-exempt benefit on the part of the employees.

Notwithstanding to the current initiatives by individual service providers, the Government has taken a proactive effort to stimulate the Broadband uptake among the public by announcing an individual tax relief for broadband subscription up to RM500 for 2010 - 2012 in the Budget 2010 speech. In addition to the tax relief, the Government also announced that it is subsidising the broadband netbook packages which allows first year university students from low income family to subscribe to broadband with installment facility for as low as RM50 per month for two years starting from 1 January 2010.

DIGITAL DISTRICTS

DIGITAL PEKAN

Digital Pekan that was launched on 30 January 2010 by YAB Prime Minister, is one of the initiatives under the National Broadband Implementation (NBI) strategy which aims to provide broadband services to the people by utilising digital technology to generate social and economic activities in the community.

The digital district approach that commenced with Digital Pekan follows in the development footsteps of other digital city initiatives adopted in Guro, South Korea; Kenniswijk, the Netherlands, and Stockholm, Sweden.

The broad focus of this initiative is to develop an information society at local level, whilst duplicating and aiming the spreading of its benefits to other districts, eventually covering all cities and states within Malaysia, hence creating a rippling effect towards the digitalisation of Malaysia.

Among other projects outlined for Digital Pekan include:

a) Broadband Experience Centre.
   - The objective here is to create a one-stop centre that would serve the following purpose:
     i. Allow people to experience the benefits of the free service internet access and multimedia tools,
     ii. Provide information and training about new technologies/ product,
     iii. Develop equal opportunity for access to technology and
     iv. Prevent social/financial exclusion generated by these new tools.

b) Computers@Home
   - The objective here is to enable a greater number of citizens to acquire computer equipment
   - An affordable package which includes a laptop and a connection to internet to be offered by the Broadband service providers

c) Wireless@Pekan
   - The objective is to provide free access to internet for a defined period to the citizens. This is based on the principle that the internet should be accessible to all and that financial cost does not constitute a barrier to the use of new technology in everyday life.

d) Virtual Pekan Memoria
   - Encourage local content development that involves various activities that can create demand stimulation: Pekan Blogging Competition, Digital Story Telling and other activities.

e) In Town Portal-www.pekan.my
   - A comprehensive web portal containing information about everything in Pekan including retail, arts, local attractions and other informations. Applications include public discussion forum, e-mail, personal ads, diary of local events and the like.

f) Awareness Campaigns
   - To create and increase awareness of broadband and its services amongst the community in Pekan

g) e-Pekan
   - Implementation of e-government services

The industry partners who collaborated in moving this project forward are WiNet, TM, MAMPU, Kementerian Pelajaran, Intel, HP, Hei-Tech Padu, DiGi, Maxis, Danawa, U-Mobile and Celcom.

Schoolnet Facilitator Programme

To enhance the ICT knowledge among school children, the Government has initiated a broadband awareness programme through the placement of SchoolNet Facilitators in schools nationwide. The Ministry of Information Communication and Culture (KPKK), formerly known as the Ministry of Energy, Water and Communication, secured a fund allocation under the Economic Stimulus Package 2 to initiate this project. Under this programme, nearly 1000 unemployed ICT graduates are recruited as SchoolNet Facilitators. Prior to their posting, they would undergo an intensive training organised by the Ministry of Human Resource.

The primary role of these SchoolNet Facilitators is to plan and conduct various activities, trainings and programmes that expose students, teachers, parents and the general community on the advantages of broadband. They are also custodians of the ICT equipment in their respective school.

Broadband Development Index (Indeks Kemajuan Jalur Lebar (IKJ))

The Broadband Development Index has been identified as one of the top benchmarks under the Key Result Area (KRA) for 'Development and enhancement of communication infrastructure and facilities nationwide'. The target set for the 'Big Wins' is to be in top 40 in ICT Development Index (IDI) ranking by 2011. The Broadband Development Index was proposed to the Cabinet Committee on Broadband Meeting no. 5 (CCB5) as an additional measurement for broadband progress in the country.

IDI Ranking for Malaysia

The table below shows Malaysia's worldwide ranking based on ITU's IDI for 2002, 2007 and 2008.

IDI Ranking for Malaysia

	2002	2007	2008
Rank	**50**	**55**	**56**
Score	**2.74**	**3.66**	**3.96**

Through IKJ, Malaysia is targeting to be in the Top 40 index values range from 5.29 to 7.85.

The IKJ sub-indexes are as described in the table below.

IKJ Component / Parameter	Agency/ Ministry Assigned
Broadband Access	
Fixed telephone lines subscriptions	KPKK/SKMM
Mobile cellular telephone subscriptions	
International Internet bandwidth per Internet user	
Proportion of households with Internet access at home	
Proportion of households with a computer	MOSTI
Broadband Use	
Internet users	KPKK/SKMM
Fixed broadband Internet subscribers	
Wireless broadband subscriptions	
ICT Skills	
Adult literacy rate	KPM
Secondary gross enrolment ratio	
Tertiary gross enrolment ratio	KPT

Strategising IKJ

While strategising IKJ, a number of workshops with the stakeholders were conducted to decide the target for Malaysia. The stakeholders consist of ministries, agencies, and industry players:

- SKMM – Malaysian Communications and Multimedia
- KPKK – Ministry of Information, Communications and Culture
- MOSTI – Ministry of Science, Technology and Innovation
- KPM – Kementerian Pelajaran Malaysia
- KPT – Kementerian Pengajian Tinggi
- DOS – Department of Statistics
- Industry – CMA licensees

Based on the discussions held thus far, a target for IDI was set to the score of 4.90 which is benchmark to the 40th position in year 2007.

The following diagram illustrates the achievement of the IKJ sub-indices as end of 2009.

IKJ Component / Parameter	Status (2009)	Target (2010)
Broadband Access (Weight 40%)		
Fixed telephone lines	4,311,316 [1]	4,086,236 [3]
Mobile cellular telephone subscriptions	30,382,333 [1]	36,484,250 [3]
International Internet bandwidth	140,000 Mbps [1]	97,200 Mbps [3]
Households with Internet access at home	3,298,730 [2]	4,251,315 [3]
Households with a computer	1,806,448 [2]	3,468,903 [3]
Broadband Use (Weight 40%)		
Internet users	16,140,632 [4]	16,344,944 [3]
Fixed broadband Internet subscriptions	1,535,467 [1]	1,751,244 [3]
Wireless broadband subscriptions	1,084,970 [1]	1,751,244 [3]
ICT Skills (Weight 20%)		
Adult literacy rate	90.7% [2]	95% [3]
Secondary gross enrolment ratio	69.1% [1]	96% [3]
Tertiary gross enrolment ratio	24.9% [1]	40% [3]

10th Malaysian Plan (RMK-10)

To ensure the coverage of communication infrastructure for the country and preparing Malaysia to achieve a high income nation status by 2020, a proposal on the expansion of high speed backbone and backhaul network to the other parts of the country with the aim to reach the rural communities was submitted.

CONTENT DEVELOPMENT

Overview

Networked content is the most important ingredient in driving adoption of technology such as broadband, Internet, mobile and digital TV. This is evident with the recent rapid increase in mobile and broadband penetration due to the popularity of various user generated content such as social networking portal (for example Facebook, MySpace, Twitter, Plurk etc.) and content sharing platform like Youtube. It is in line with the 9th Malaysia Plan (RMK9) which stressed that ICT is identified as one of the key transformation and new sources of growth for the country and networked content will be the crucial pull factor to ensure the growth of the ICT industry in coming years.

Based on this understanding, the Government has begun various initiatives to enhance the development of more local content. In recent 2010 Budget speech which was delivered by the Prime Minister on 23 October 2009, he announced the establishment of RM200 million fund to help stimulate the growth of creative industry encompassing filmmaking, musical production, animation and creative activities. The fund was launched on 30 December 2009 by YB Dato' Seri Utama Dr Rais Yatim.

In addition, with the Multimedia Development Corporation (MDeC) as custodian, the Government established a fund with the initial allocation of RM75 million to assist MSC-status companies co-produce animation and games with foreign partners.

2009 witnessed a jump in the content market due to developments such as growth in mobile subscriptions, high broadband takeup assisted by aggressive WiMax promotion and increase in 3G takeup. The number of mobile subscribers grew to more than 30 million in 2009 as compared to 27 million in 2008 which makes Malaysia having the second highest mobile penetration in South-East Asia after Singapore. Most importantly, advancement in the mobile sector continues throughout 2009, with a significant push into 3G services. Over the last few years, the broadband penetration has risen to a much healthier rate of 31% by the end of 2009. WiMAX takeup also grew exponentially to 125,000 last year compared to the previous year at only 15,000.

Highlights

Network Content Development Grant (NCDG)

The Networked Content Development Grant (NCDG) with an initial size of RM20 million was launched in July 2007 by the former Minister of KTAK, YABhg Tun Dr. Lim Keng Yaik. Realising that networked content will become an increasingly important component in the communication and multimedia sector, the fund size has been increased to RM50 million. The main objective of this scheme is to render funding assistance to content developers as outlined in the MyICMS886 strategy. It aims to facilitate and encourage Malaysians to be involved in the creation, production and distribution of highly creative, original and marketable content for domestic and international markets.

The table below provides some facts and figures about the NCDG in 2009.

Description	Status (as of 31.12.2009)
Number of applications received	56
Number of applications rejected	29
Number of applications approved	8
Total amount disbursed	RM2,796,844
Total amount approved	RM5,719,350

More emphasis has been given to content which has the potential to be exploited on multiple platforms which is in line with the current trend of convergence and triple-play services globally. Although certain types of content have their primary platforms such as broadcast, mobile or online, the developers are strongly encouraged to prepare strategic plans to offer the same content on other platforms with the aim to generate more revenues from the content that they created under the NCDG.

Rigorous and transparent assessment procedures are carried out before approval same given. Two committees are responsible to evaluate and approve all the applications as stipulated in the NCDG evaluation process. The NCDG Business and Technical Committee (NBTC) is an expert committee consisting of content development senior officers representing nine organisations which are among the major stakeholders in the industry. The NCDG Management Committee (NMC) is the final approval body to evaluate and review all recommendations submitted by the NBTC to ensure that the award of grants to the approved applicants are in line with the objectives of the NCDG, National Policy Objectives and MyICMS 886 Strategy. It is a Commission Committee chaired by the Secretary General of KPKK.

NCDG was established to encourage Malaysian involvement in the creation of networked content marketable to domestic and international markets. This purpose has come to fruition with numerous achievements and recognitions received by the NCDG grantees. One of the projects, an animation series called Mustang Mama Die-Hard Sports Fan by Inspidea Sdn. Bhd., received various international recognitions and is generating constant revenues for the company.

Further details about the key achievements and recognitions are as follows:

NCDG GRANTEES	ACHIEVEMENTS & RECOGNITIONS
Inspidea Sdn Bhd	• The company successfully co-produced an animation series, 'Boo and Me' with Kids Co., a UK-based children's television network; • Mustang Mama Diehard Sports Fan Season 2 has successfully penetrated global market namely, Japan, Singapore, Russia, Middle-East, Canada, and Italy.
Firdaus Maju Sdn Bhd	• 'Alexander Bukan Zulkarnain' produced and aired on ASTRO in January 2009; • Factual Book on similar title 'Alexander Bukan Zulkarnain' was published in 2009 and sold for more than 30,000 copies.
Murasu Systems Sdn Bhd	• Collaborated with Berita Harian and Harian Metro to offer Jawi News on mobilephone; • Successfully developed Mobile Jawi on iPhone and Blackberry.
Just Mobile Sdn Bhd	• Was selected as Finalist in the 360 Content contest in MIPTV, Cannes. • The Interactive TV Game Show has been successfully aired on 8TV in December 2009; • They are currently working with Orange, the international mobile content aggregator in the Netherlands for World Cup mobile games.
Bill Adam Sdn Bhd	• Collaborated with Maxis, DiGi & Celcom to carry contents such as Telco-branded products; • Launched Animated Mobile Greeting Cards with Maxis in August 2009; • Collaborated with Vringo, a US-based company to penetrate Armenia and Turkey markets.
Trinity Wizards Sdn Bhd	• Created MoPetz, a virtual pet community that is also a social networking platform; • MoPetz has close to 20,000 members and the community is constantly populated; • The same platform was exploited to reproduce a mobile games platform and mobile advertising platform that are currently being used by EA, the largest games developer and GLU, the third largest games developer.

Market Access to Content Development

One of the two expected results of MyICMS886 for Content Development is stated as "content will be a sizeable export revenue contribution for Malaysia". To realise this vision, SKMM collaborates with other Government agencies such as MDeC and FINAS to conduct market access programmes. In April 2009, SKMM became one of the co-organisers to bring Malaysian companies to sell their content and find production partners at MIPTV 2009 in Cannes, France.

MIPTV 2009

The annual MIPTV organised by Reed MIDEM in Cannes is the largest media trade market in the world for co-producing, buying, selling, financing and distributing content across all platforms. Attended by 13,000 participants and more than 4,500 companies/agencies from 111 countries, MIPTV is a concentrated avenue for local producers to meet and strike deals with major foreign buyers from Europe, America and Asia.

The Malaysian Pavilion at MIPTV 2009 that was produced by MDeC and SKMM results in various deals related to licensing rights and a co-production worth RM172 million were formalised during the event compared to RM78 million the previous year. (Source: MDeC)

MIPCOM 2009

Another programme SKMM participated in was the MIPCOM 2009 in Cannes, France. SKMM, as one of the co-organisers of MIPCOM 2009 collaborated with FINAS to bring local companies to sell content and seek co-production partners. MIPCOM is the global content event for co-producing, buying, selling, financing and distributing entertainment content across all platforms. The event was attended by over 12,000 visitors and 4,027 buyers from 102 countries. The Malaysian Pavilion at MIPCOM 2009 produced by FINAS and SKMM attracted deals worth RM1.51 million that were closed during the event. (Source:FINAS)

Most notably, the Prime Minister, YAB Dato' Sri Najib Tun Razak visited MIPCOM 2009 on 5 October 2009 during his official visit to France. The Prime Minister's visit to launch the MSC Malaysia 'creating content for the World' at the MIPCOM 2009 has significantly enhanced the profile of content industry in Malaysia.

ATF 2009

SKMM also collaborated for the first time with MDeC and FINAS to have 1Malaysia Pavilion in Asia Television Forum (ATF) 2009 in Singapore. This event is one of the Asian film and television trade markets supported by the Media Development Authority (MDA) for co-producing, buying, selling, financing and distributing content. The event was attended by 254 international seller companies and 400 buyers from over 39 countries around the world. The 1Malaysia Pavilion at ATF 2009 has a joint initiative by MDeC, FINAS and SKMM and it was reported that RM1.59 million worth of deals closed during the ATF 2009. (Source:FINAS)

Policy Development

The Cabinet restructuring in April 2009 resulted in a significant shift in the content industry landscape. Almost all government agencies related to content development and regulation which were scattered under different ministries are now under the leadership of the Minister of Information, Communications and Culture, YB Dato' Seri Utama Dr. Rais Yatim and under the governance of the Ministry of Information Communication and Culture (KPKK). Major players such as RTM, FINAS, ASWARA, Filem Negara Malaysia and SKMM are now overseen by a single Minister.

This development reinforces the efforts to integrate and coordinate content development activities in a systematic way which has been attempted by SKMM through the setting up of Working Committee 2 under the MyICMS886 initiative. The level of communication and cooperation between the agencies under KPKK increased significantly leading to a more wholesome thinking on developing the industry.

Among the major policy initiatives that took place in 2009 are the Creative Industry Policy and the National Content Policy. SKMM played an instrumental role in drafting the National Content Policy by organising a three-day workshop in August 2009 to gather valuable input towards drafting the policy. The policy is now being finalised at KPKK and will be one of the cornerstones in the Creative Industry Policy which covers a more extensive scope.

Capacity Building

Realising the important role of content development in shaping the economic and social development of the country, SKMM leverages on its strength as the regulator and developer of the communications industry to bring various parties together to conduct capacity building activities.

In 2009, SKMM continued to collaborate with Maxis to co-organise the Mobile Content Challenge 2009 (MCC). The MCC is a unique programme targeting students at institutions of higher learning (IPTs) that combines contest and capacity building to develop creative and innovative mobile content. It was organised by Maxis in partnership with SKMM and KPKK.

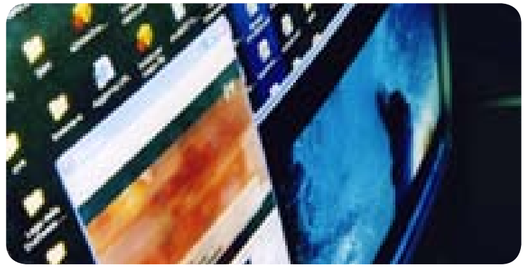
Being a co-sponsor for the third time has enabled SKMM to forge strong links with industry players. In 2009, the response for MCC 2009 was encouraging which saw a total of 180 submissions received from various IHLs.

SKMM also collaborated with Astro and MDec to organise another micro-level programme to promote content development with a focus on TV content, namely the NextGen Contentpreneur Awards 2009 (NCA). It is a programme for tertiary students of Communications, Broadcasting and Multimedia. This programme aims to encourage the development of local talents and acts as a platform for them to showcase their creativity via innovative mode of expressions.

In addition to competitions, SKMM conducts and participates in seminars and workshops to promote the opportunities in network content development. An iPhone Application Workshop was held in May 2009 to enhance the links and cooperation among the various stakeholders of the content developers and aggregators. Six workshops on mobile content development were organized throughout the country in collaboration with Maxis.

SKMM and KPKK also organised a brainstorming session which brought together industry players, technology providers, policy makers, media practitioners, academics and many others to discuss the issues and advancement of creative multimedia industry. SKMM played the role of moderator and many interesting issues pertaining to creative multimedia industry were forwarded as an input to Economic Planning Unit (EPU) for the 10th Malaysia Plan.

SKMM has also supported MAMPU in the awareness program for content development by participating in numerous seminars in Pembangunan Kandungan Sektor Awam.



DIGITAL MULTIMEDIA BROADCASTING

Digital TV

The initiative to introduce digital TV service is further strengthened following the integration of the information, communication and culture functions under a single Ministry. The assimilation of these related functions made possible a unified approach to implement digital TV services in line with the national agenda and the 10 National Policy Objectives for the communications and multimedia industry.

The Ministry of Information Communication and Culture and SKMM collaborated with other related Government agencies such as the Economic Planning Unit in the Prime Minister's Department, the Ministry of Science and Technology and the Ministry of Finance to formulate and propose to the Cabinet, the most viable option to implement digital TV services in Malaysia. Among others, the proposal takes into consideration the economic, regulatory, technical and social aspects whilst enhancing the Government role and encouraging private sector participation. The proposal also promotes the sharing of common infrastructures among broadcasters and new content providers leveraging on cost optimisation, wider coverage and an integrated approach to roll out digital TV services for the population at large.

At the broadcaster's level, the efforts to digitise the overall studio production and on air facilities were intensified to enable the seamless migration towards digital broadcasting. To date, almost 90% of the broadcasters facilities are digital ready while the initiative to include high definition broadcasting are already in the pipeline.

SKMM together with the technical industry forum led by the Malaysian Technical Standard Forum Berhad (MTSFB), completed its consultation on the receiver technical specification to include integrated digital television (iDTV) as one of the multimedia receiver terminal. The technical forum also studied and formulated minimum specification for the middleware of the receiver terminal to enable interactivity applications.

In line with its efforts to protect the consumers and emulate countries that have successfully rolled out digital TV worldwide , SKMM joined forces with the industry to formulate a certification programme for the digital multimedia receivers including top set boxes to ensure only certified receivers are being deployed to the market. The aim is to prevent illegal influx of multimedia receivers that do not adhere to the Malaysian technical standard, thereby resulting in enormous complaints from the users. Other issues covering the architecture of the Electronic Programme Guide and middleware platform for the purpose of interactivity are also being discussed at the forum and Digital Switchover Group levels.

To enable the efficiency on spectrum usage, SKMM completed its spectrum planning for digital TV and engaged in public consultation by end of 2009. The objective is to obtain feedback from the public, review and update the current spectrum plan taking into consideration the latest requirement from broadcasters. The plan, which includes digital sound broadcasting, covers the minimum requirement on the use of spectrum to enable the migration of analogue broadcasting from Band I, III and IV to Bands III and IV.

At the ASEAN level, Malaysia participated actively in the ASEAN Digital Broadcasting meetings and among others, agreed with member countries to adopt a common standard (DVB-T) for digital TV and implement a phased analogue shut off from 2015 to 2020.

Digital Radio

For a long time radio was the largest mass media especially during World War II where the usage of SW, MW and AM frequencies were employed. Besides delivering news updates and entertaining its listeners, the radio was an easy and cost effective methods of information.

In order to continue and compete effectively against the richer experiences of TV, the internet and mobile networks, radio must go digital. Consumer and advertiser expectations are changing and radio must now be more accountable, more interesting and engaging, particularly for younger audiences. Digital radio can deliver richer content and new business opportunities to the broadcasters whilst continuing the tradition of radio business, maintaining the variety and also enhancing the radio service by adding multimedia services such as mobile TV, slide show, electronic programme guide and more data applications.

Meanwhile, advertising spending on radio in the period between January and September 2009 registered an impressive growth of 21% to RM259.5 million, outperforming the total advertising market (excluding classified ads) which has taken a 6% increase against the same period last year. The growth is driven by increased spending by food retail, bank/finance, fast food, automotive and medical sectors. On average, radio attracts an audience of 11.1% (1.87 million) of listeners in any given 15 minute time slot throughout the day and an average radio listener tunes in 20.4 hours a week.

The healthy growth of the radio industry in Malaysia has resulted in spectrum congestion of the FM band in most market centres.

In 2008, RTM collaborated with MTSFB to conduct a digital radio broadcasting trial employing Digital Radio Mondiale (DRM) and T-DMB standards. RTM will be conducting another trial utilising Digital Audio Broadcasting Plus (DAB+) standard targeted for October 2009.

Commercial Radio Malaysia (CRM) society/association proposed further studies on the establishment of a digital radio broadcasting eco-system for Malaysia encompassing among others, business models, infrastructure owners, multiplexer operators and receiver devices. Airtime Management & Programming (AMP) Sdn. Bhd. informed its joint collaboration with Austereo being one of the Commercial Radio Australia members. AMP will be interested to look at Australia which has successfully launched commercial radio digital services and learn from their experience. In consideration of this, SKMM set up a Digital Radio Work Group in July 2009 to revive the work on digital sound broadcasting which started in 2005. The earlier Work Group had proposed that Eureka 147 (DAB/T-DMB) and DRM as the standards to be adopted for Malaysia based on key features and requirements deemed important to radio broadcasters, radio listeners and advertisers.

Mobile TV

Digital TV technology enables TV viewers to watch content everywhere, anytime and anyplace on various devices ranging from hand phones, portable media players, and laptops. The TV viewing habits are transformed to become more personalised as compared to traditional viewing which is time and appointment-based.

SKMM has undertaken planning for the rollout of mobile TV in terms of spectrum allocation in the same band as Digital TV for fixed reception, which was ready by end of December 2009.

Media Prima implemented a mobile TV trial in Q1 and Q2 2009 to study it's commercial, technical and feasible viability. The trial was conducted in collaboration with a Korean Radio Association employing the T-DMB standard, which was developed by the Koreans. The coverage area for the trial was 50-kilometer radius within Bukit Sungei Besi and aired on several Media Prima radio and TV channels to an approximately 50 trial users. Following the trial service and based on the results of the study, a commercial launch is highly unlikely as mobile TV service was not widely accepted by the sample group.

Nevertheless, major telecommunication players such as Digi, Maxis and Celcom, other incumbent licensees namely Asia Media and Asia Space expressed keen interest to roll out mobile TV services in Malaysia. The effort to launch this service is pending the Government policy on the overall implementation and infrastructure rollout of digital TV for fixed and mobile reception using Band III and Band IV. Alternatively the SKMM prepared a tender exercise to invite bidders to roll out mobile TV services using L-Band in urban centres focusing to serve people in transit. The tender exercise is expected to be published in early 2010.

The Way Forward

Malaysia is poised to be at par with worldwide development in the introduction of digital TV services and eventual shut off of analogue broadcasting. The participation of private sector is envisaged to assist and expedite the deployment of the digital TV infrastructure, whilst promoting the role of the Government to facilitate the smooth migration to digital TV broadcasting. The deployment of digital TV broadcasting will also spur other related services such as mobile TV within the same frequency spectrum.

While spectrum may not be available for the deployment of Digital Radio services until after analogue shut off, digital radio broadcasting trials shall be conducted on the current available spectrum band to enable further studies on digital radio broadcasting and prepare the industry towards the imminent digital radio broadcasting implementation, in line with worldwide trends.

U-LIBRARY DEVELOPMENT

The congruence of infrastructure and infostructure development for knowledge integration and application in the multi-faceted economic sector warrant a special focus as it means that knowledge and information have become key to competitiveness and growth. Hence, the successful transformation of the nation into a knowledge-based society provides a good opportunity to 'leap-frog' to a higher level of growth and competitiveness.

Taking cognizance of the significant role of libraries in respect of access to knowledge, the Economic Planning Unit (EPU) of the Prime Minister's Department sanctioned an allocation under the 'Bridging Digital Divide Programme (BDD), in support of implementing the pilot project for the development of network infrastructure and infostructure underpinning broadband in seven libraries with essence of ubiquity, simply known as 'Ubiquitous Library' or 'U-Library. In this connection, SKMM has been given the honour of presenting the U-Library initiative at a Luncheon Talk on 5 May 2009 to the Management and staff of EPU. The financial support for U-Library by EPU has been further strengthened by an endowment from SKMM and with the completion of this solicitation of fund, the U-Library project secured an approval for implementation through the Steering Committee on ICT (JPICT) of the Ministry of Information Communication and Culture (KPKK) on 16 July 2009.

Figure 1:
Collaborative Efforts of Participating Agencies in the U-Library Initiative

The U-Library Pilot Project manifests the collaborative effort of KPKK through SKMM, with the support of the National Library of Malaysia (PNM) and other U-Library Consortium members, comprising the State Library of Selangor (PPAS), State Library of Negeri Sembilan (PPANS), State Library of Pahang (PPAP), Pustaka Negeri Sarawak (Pustaka), Kuala Lumpur Library (PKL) and INTAN Library at Bukit Kiara. In this regard, the U-Library initiative represents potential mechanism of more than 12,000 libraries throughout the nation with a gamut of information resources and services that could be harnessed for knowledge resource sharing through the provision of the broadband infrastructure. In recapitulating the National Broadband Plan, the positioning of libraries as agents of knowledge content is depicted through 'leveraging traditional information resources' in invoking 'attractiveness' for the broadband demand takeup.

U-Library has been identified by MAMPU as one of the projects that is being monitored progressively by the Integrated Task Force on Content Development (ICON) for the public sector. The progress of the U-Library project will be presented to ICON through the monthly ICON meetings at MAMPU with the public sector agencies. Aside from the monitoring effort by MAMPU, the U-Library Pilot Project has also been approved by the ICT Technical Committee at MAMPU on 13 August 2009. This represents a second step of approval in its journey through the tendering process.

Figure 2: Information Representation on U-Library in the Yellow Page Content Hub of MAMPU

At the international scene, the IAP (International Advisory Panel) Meeting for MSC Malaysia in November 2009 has recognised U-Library as one of the projects to deliver innovative services to society with the use of ICT as depicted in the following literature.

Figure 3: U-Library Depicted in the Literature of IAP

'Libraries for life – Knowledge for success' or 'Bringing knowledge to life' are amongst the taglines afforded by libraries to manifest the significant function of handling knowledge acquisition, knowledge organisation, knowledge discovery and knowledge dissemination for an inclusive knowledge society with the global advancement of ICT. It is pertinent for libraries to explore the methodology for the information delivery service to be enhanced, in tandem with the technological trends and the sophistication of user information needs encompassing speed and efficiency in accessing information, anytime, anywhere and by anyone. U-Library shall landscape the convergence of technologies that include broadband, portal, RFID, smart card, cashless payment and delivery service gateway to unlock the knowledge resource seamlessly with an extension of delivery service to the door step.

The strategic alliance amongst members of the U-Library Consortium shall contribute to the increase in library membership registration through the activation of common membership or affiliated membership. U-Library empowers the use of MyKAD/MyKID/MyPR in supporting the Government's endeavour in handling one identification across all forms of transactions, under the MyID initiative, in an effort to improve the quality of Government delivery service. Moreover, U-Library supports the national aspiration in the realisation of knowledge-based economy wherein its infostructure is laden with content development; promotion of e-learning as well as life-long learning, whilst enriching the value of information in a knowledge repository that is familiarly known as the National Union Catalogue. Another feature within which U-Library is entrusted to coordinate is the integration of library and information resource management in the library consortium environment.

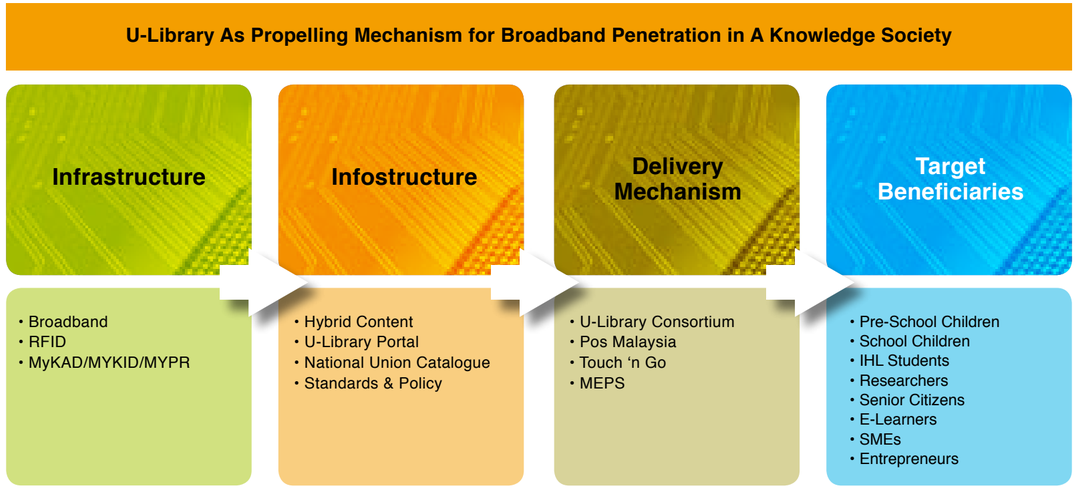


Figure 4 : U-Library As Propelling Mechanism for Broadband Penetration in A Knowledge Society

The overall system requirement for the implementation of the U-Library Pilot Project has been tabled and approved by the U-Library Steering Committee (ULSC) in February 2009. Henceforth, a series of technical discussions at the U-Library Technical Committee (ULTC) level resulted in tender technical specifications using RFID-enabled equipment and UHF RFID tags with conformance to the MCMC spectrum release viz. 919-923 MHz and EPC Global Class 1 Gen 2/ISO 18000-6C; software for the development of the U-Library portal for inter-lending service and a suite of web service components; networking and broadband services as well as requirements for services of data centre and disaster recovery centre. The tendering process which took place between October and November culminated with a Letter of Award in December 2009.

Figure 5 : U-Library Aspiration

SKMM has taken a leadership role in driving the ubiquitous concept with the notion of providing information access, anytime, anywhere for people from all walks of life, in the context of 1Malaysia. SKMM coordinates the project development with a strong support from the National Library of Malaysia in leveraging the development of traditional information resources by positioning libraries in the National Broadband Plan and in supporting four knowledge pillars including Teaching, Integration, Application and Knowledge Discovery. It is the aspiration of the U-Library Project to unlock knowledge resources at the national level through the National Library of Malaysia; state level through State libraries and Local Government authority libraries; Community Broadband Centres (CBC) and Community Broadband Libraries (CBL), and finally, U-Library brings forth the idea of 'putting a library in every home'.

Critical Success Factors for U-Library

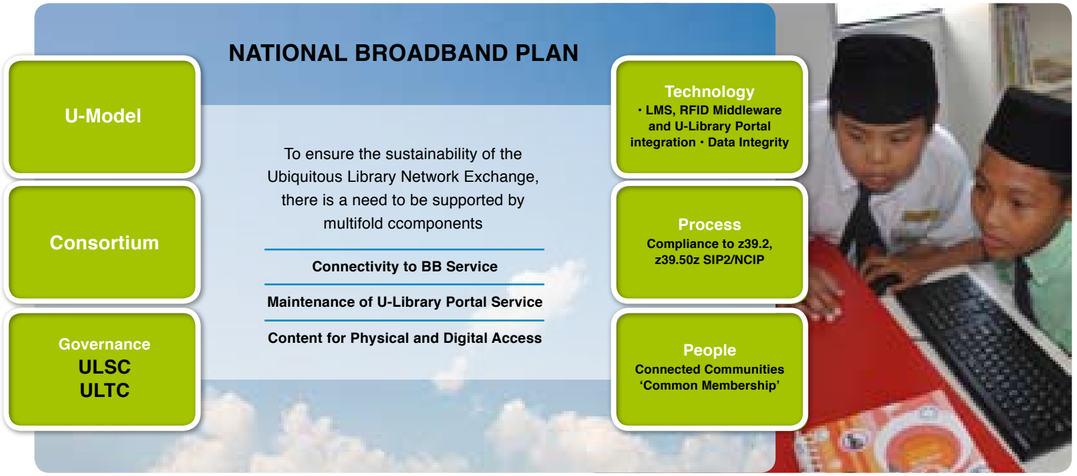


Figure 6 : Critical Success Factors for U-Library

The sustainability of U-Library, as a system that relies on the continuous support from a number of components such as the U-Library Model technical guideline, U-Library Consortium as the U-Library Information Service Provider (ISP), continuous ULSC and ULTC governance, stability of the broadband network service, U-Library Portal service maintenance and provision of knowledge content for physical and digital access. This must be accompanied by three inter-related elements, technology, process and people. The critical success factors that have been identified are based on the observation throughout the duration of the U-Library Trial Run from January until July 2009. Measurement for the U-Library Trial Run is landscaped by five elements that include the concept of 'Common Membership'; utilisation of the National Union Catalogue; delivery service via eParcel service of Pos Malaysia; broadband speed and the competency of library staff in handling the connected community amongst the U-Library consortium members.

These success factors need to be realised in order to achieve the U-Library objectives in the following sequence:

1. Making information accessible with the widening of broadband service, RFID, portal technology and content development;
2. Cooperative library network system to foster collaboration through inter-lending service, delivery service, e-payment service and virtual access to expand the capacity to innovate and create knowledge dividend for the nation; and
3. Creating, sharing and exchange knowledge in a knowledge society to keep communities connected; promote life-long learning and deepen social network in the context of 1Malaysia.

Feature Article:

MALAYSIA'S DRIVE FOR HIGH SPEED BROADBAND

High-speed broadband or HSBB is part of Malaysia's National Broadband Implementation Strategy and the Government aims for the country to achieve 50% broadband penetration by 2010. This involves several strategies in terms of both supply and demand.

According to the Malaysian Communications and Multimedia Commission (SKMM), Malaysia's broadband penetration was 17.5% of households at the end of the third quarter of 2008. That meant that there was still a large market to grow for many service providers.

Also, the increased focus on high tech and knowledge based industries meant that broadband was going to become an essential utility. Not only was broadband a must in areas like high tech parks, it was also necessary in homes. Workers were beginning to work more from their homes.

Just like electricity and water supply are standard features in homes, similar arrangements were going to be needed for broadband services in Malaysia.

High-speed broadband adds to the competitiveness of a nation in the global economy and it is imperative that the nation keeps up with other nations in the rollout of highspeed broadband. The HSBB project is thus a vital necessity that has to be implemented as quickly as practicable as the nation races to achieve the Malaysia Vision of a knowledgebased economy in 2020.

A two-pronged strategy is deemed to be necessary to meet the penetration rate target. One comes from the supply side whilst the other from the demand side of the broadband market.

The supply side

On the supply side of the broadband market, the Malaysian Government has defined two categories of broadband. The first is HSBB in selected geographic areas with speeds ranging from 10 Mbps up to 100 Mbps for residential customers using fibre to the curb – namely, roadside cabinets - with the final part of the connection provided via a wire pair into the premises and up to 1 Gbps using fibre directly into premises for businesses and high economic impact areas.

The second is Broadband to the General Population (BBGP) with speeds generally from 256 Kbps to 2 Mbps and all the way up to below 10 Mbps.

HSBB is required for advanced and bandwidth services such as digital homes, medical imaging and multi-channel high-definition TV applications and services. In Malaysia it will be implemented mainly in industrial areas, cities, towns and the various development regions including cybercities and cybercentres, technology parks and the Iskandar Development Region in the southern part of Peninsular Malaysia will feature HSBB.

The Government's strategy to achieve this is through collaborative effort in a public-private partnership. An agreement to that end was signed between the Ministry of Energy, Water and Communications (KTAK) and Telekom Malaysia (TM) in mid-September 2008 to roll out HSBB over a period of 10 years. Under its first phase, HSBB access will be provided to over 1.3 million premises by 2012.

Under this initiative, TM will provide last mile access to homes and businesses through three main technologies namely, fibre-to-the-home (FTTH), Ethernet-to-the-home (ETTH) and Very High Speed Digital Subscriber Line (VDSL2).

The Government will co-invest RM2.4 billion (US$685 million) towards the project, while TM will provide RM8.9 billion (US$2.54 billion). The Government's portion is mostly to make up for the lower net presence value (NPV) due to pushing supply into areas such as new housing estates and new industrial zones which are regarded as non-profitable by the other service providers to do so.

While some in the industry and other commentators have criticised this partnership for providing an advantage to one service provider over the others, the Government sees it as the only practical means to enable quick HSBB rollout, especially when Malaysia is far behind in broadband penetration compared to other countries. It needs to catch up fast. Efficient and speedier roll out is required. TM is the only service provider with an extensive network of fixed 39 line infrastructures and ducts in place nationwide, so it's simpler, cheaper and faster for TM to do it.

New lifestyle with HSBB

Broadband has the potential to revolutionise the way we live and work, delivering real economic benefits. The demand for multimedia is the prime driver for high-speed broadband. The communications industry has moved to the stage where it focuses on broadband. There is a growing demand for faster Internet access that supports applications such as collaborative networking, video conferencing, telepresence, IPTV, Video on Demand and VoIP. To meet this demand for bandwidth, a growing number of service providers have begun offering high bandwidth to subscribers in key regions worldwide.

The increase in Internet access speeds can be directly linked to the types of services offered over the network. The provision of single play services that were primarily data-only services were responsible for moving dial-up users to ADSL which was mostly provided in Malaysia by TM through its Streamyx service. Most users basically used the Internet for browsing static content (graphics and text) and email with a little bit of music and video streaming.

Dual play came along and added voice with better quality of service (QoS) to existing data connections. This allowed cost effective voice over IP (VoIP) services along with other value-added services. Though these services were initially of poor quality, customers did not mind as they were provided at low prices.

The networked world has now moved on to triple play which combines Internet access, voice communication (telephony) and entertainment services such as video streaming. Quadruple play adds seamless mobile access to the equation. The growing popularity of social networking applications and personalised services are adding even greater bandwidth demand.

To provide an acceptable level of service for current and future Internet services and applications, HSBB becomes absolutely necessary. The speeds envisaged in the HSBB project along with the move to an all-IP network and improved bandwidth management will provide very high quality levels of services and promise subscribers with a TV-like (including high definition) or even better experience.

Economic benefits

HSBB is important economically. According to an Economic Planning Unit study, broadband can deliver significant benefits to Malaysia. Achieving 50% household broadband penetration by 2010 can result in tangible contribution of 1% to country's gross domestic product (GDP) and create 135,000 new high-value jobs in 2010.

That will also create opportunities and markets for applications and content developers. It will also boost local industries and employment generation directly. The national broadband strategy will enhance human capital and allow for movement up the value chain. It will enable the K-economy and serve as a catalyst for overall national competitiveness.

Open Access to HSBB

To ensure there's no unfair advantage to TM with regards to other service providers, HSBB will be an open network with open access and fair pricing that will allow other service providers fair and non discriminatory access to provide their own services over it for a reasonable fee.

The existing Access Regulatory Framework will be further developed to ensure the network is open and that the pricing is fair. SKMM noted that it is very important to promote an open network without necessarily duplicating the costly last mile and backhaul connectivity to promote economic growth. Service providers would initially be able to seek and provide access from Bitstream services as well as Digital Subscriber Line Resale Service.

The regulatory framework is on an open network access concept. Other industry players will be able to obtain network access on a commercial, non-discriminatory, fair and equitable basis.

For example the HSBB network will be open to other industry players at the applications and network service level. Qualified service and application providers will be able to launch services such as IPTV and other multimedia services on TM's HSBB network. Further, for connection services it will provide access to core and international networks.

Broadband to the General Population

BBGP is the second category in the supply push and it will be deployed in all areas including areas covered by HSBB. It will be provided by current licensees using fixed ADSL (asynchronous digital subscriber line), wireless HSPA (High-Speed Packet Access) or WiMAX (Wireless interoperability for Microwave Access) and this provides an alternative and competitive means of broadband access to many.

The vision for BBGP in 2010 is to ensure enough coverage by the multiple technologies and operating service providers. For example in high economic impact areas where HSBB is present, multiple infrastructure are likely to exist. HSBB and BBGP coverage will be available across the entire zones providing alternatives and choice, including backhauling support to wireless service providers.

In sub-urban areas the current coverage will be widened under various wired and wireless technologies as mentioned above.

Provision of BBGP in less profitable and rural areas will be funded through the SKMM's Universal Service Provision (USP) fund. The BBGP programme in these areas includes Basic Telephony (through fixed and mobile network), Community Broadband Library (CBL) and Community Broadband Centre (CBC).

By 2010, 40% of the target of 3.2 million homes will be served by BBGP, while the remainder will be served by HSBB.

The BBGP service providers are not left out as under the 2008 Malaysian budget, the Ministry of Finance approved tax allowances on expenditure on last-mile broadband equipment as an incentive for service providers to roll out their broadband networks.

Among them, last mile network facilities providers will be given an investment allowance of 100% on capital expenditure incurred for broadband up to 31 December 2010.

Import duty and sales tax exemptions will be given on broadband equipment and consumer access devices. Tax deduction will be given to employers on benefits in kind in the form of new computers and payment of broadband subscription fees for employees. Such benefits in kind received by the employees will also be tax exempt.

This set of incentives will continue to be reviewed for its effectiveness to further push supply and demand.

The demand side

There is this famous saying which states that you can take a horse to the water but you can't make it drink, so while there is that entire broadband infrastructure in place, what will make people want to use it.

The Government will adopt a three-pronged strategy in three critical areas to create demand.

The first is to create public awareness of the benefits and availability of broadband.

The Government believes that while service providers will promote their broadband products, they may not promote its benefits; so the Government will have to do that together with the Industry.

Government and private sector initiatives will help create and communicate an icon or brand that encapsulates the benefits of broadband, organise Internet training courses for relevant target groups such as mothers and home-makers, encourage more urban cybercafés to be set up and set up broadband booths at community events.

Overall activities to promote broadband will be planned and coordinated with relevant stakeholders including the industry, while impact studies on the effectiveness of the programme will be conducted to provide feedback on its effectiveness.

The water in the pipe

The second strategy is to develop the attractiveness of having broadband in terms of good content and applications, i.e. the water that flows in the pipe. Here, the Government will focus on providing electronic-Government, distanceeducation and on promoting electronic-commerce.

Demand for, and the development of private content will be aided by the high quality broadband infrastructure.

Malaysians already spend on average ~5% of their monthly household income on digital entertainment and info-communications services. The current high average revenue per user (ARPU) for pay TV also indicates a high willingness to pay for content.

e-Government services

The Government is also taking actions to raise its capabilities to develop future offerings, such as building effective internal networks and infrastructure; expanding databases and systems integration and inter-operability among different Government agencies; improving coordination by strengthening the current IT governance and control framework. It is also enlarging the IT manpower pool through inter-agency knowledge sharing systems and human capital enhancement programmes.

HSBB and BBGP infrastructure will advance the Government's efforts to reach citizens and businesses with quality online services and improved accessibility to broadband would create efficiency gains through increased usage of Government online services.

One of the e-Government initiatives is the ongoing eKL project covering the Klang Valley and it is currently offering nearly 600 online services. This number is targeted to grow by 2010 with more online services being developed and delivered through several service delivery channels such as agencies' online counters and web services, mobile phone's Short Message Service (SMS), kiosk and bank autoteller machines.

Affordable to all

The third strategy is to make broadband affordable to all. Broadband is currently too expensive for certain social segments which can't afford PCs, broadband subscriptions, modems and other access devices. Coordination will be required with other Government agencies to facilitate PC ownership and broadband take up.

According to figures by SKMM and others, about 60% of middle income earners with annual income between RM18,000 and RM60,000 (US$5,143 and US$17,143) found current broadband prices in Malaysia to be unaffordable, while none of those earning under RM18,000 per annum found it affordable, while all of those earning above RM60,000 found it affordable.

A 512 Kbps DSL connection typically costs the equivalent of US$18 (RM63) per month and it needs to be lower.

There also is an almost linear correlation between PC and broadband penetration, which needs to be addressed. Thus there is a need for action plans to find solutions especially for the above middle and lower income groups.

For example, discussions will be necessary with the Ministry of Finance to lower duties on these equipment and to provide individual income tax relief on their purchases. At present, individual tax relief is only provided for purchases of notebook PCs but this has to be extended to include all equipment and SKMM will continue discussing this issue with all relevant authorities so that the affordability factor is enhanced for the target groups.

SKMM will also work with the industry in formulating broadband packages with low cost PCs and Internet devices.

To improve affordability in rural areas, the SKMM will try to widen community access by providing computers, printers and broadband access in community centres to complement current initiatives by the Ministry of Rural and Regional Development (KKLW) and the Ministry of Women, Family and Community Development (KPWKM). This serves to bridge the affordability factor as well as collaborative learning by the community to understand the benefits of broadband and how they can participate in it.

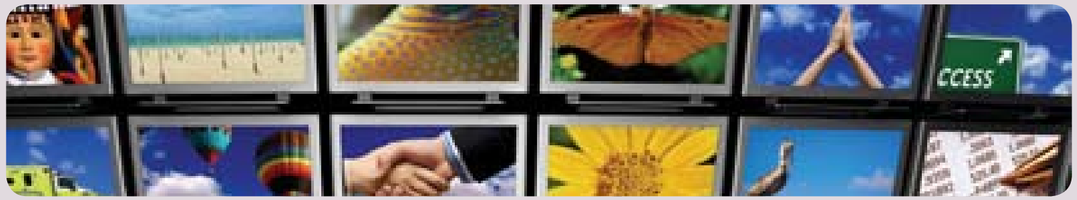
Community broadband

Telecentres offer a good platform for mass community broadband access and should be strengthened.

To achieve this, a single agency should be designated to coordinate efforts with State ICT agencies to build new telecentres and customise them to be relevant to the local population.

Telecentres should be opened at night and at weekends and IT graduates and students should be hired to operate them at these times. IT graduates should be hired as managers and all should be sent for training in best practice centre management sharing sessions.

It is hoped that Malaysia's targeted approach will bring about results and that the HSBB network will help transform the nation into a knowledge society.



As Malaysia aspires to become a more competitive nation through innovation, high creativity and free flow of information, the drive to becoming a high-income nation by 2020 should also bring about home social and economic transformation.

02

Licensing, Economic Regulation and Compliance

LICENCED ACTIVITIES

The Malaysian Communications and Multimedia Commission (SKMM) issues licences under the Communications and Multimedia Act 1998 (CMA), the Postal Services Act 1991 (PSA) and the Digital Signature Act 1997 (DSA).

Licences under the Communications & Multimedia Act 1998

As the communications and multimedia industry evolves towards convergence, licences under the CMA are formulated to be both technology and service neutral. The licensing regime as provided for under the CMA enables a licencee to undertake activities that are market specific. This creates opportunities for expansion into the industry particularly in the area of Applications Service Provider and provides for a more effective utilisation of network infrastructure.

There are four categories of licensable activities under the CMA:

- NFP – Network Facilities Providers;
- NSP – Network Services Providers;
- ASP – Applications Service Providers; and
- CASP – Content Applications Service Providers.

Under these four categories of licences, two types of licences are issued, namely, Individual licence and Class licence. The individual licences are granted for activities which require a high degree of regulatory control while class licences, only requiring registration, are renewable annually. The lists of licencees are in the respective registers maintained by SKMM.

Specifically, there are three categories of individual licence activities:

Network Facilities Provider ("NFP") Individual Licence

This licence would be required by those who own and or provide certain network facilities such as radio communication transmitters and links, fixed links and cables and towers which are used in conjunction with other network facilities.

Network Service Provider ("NSP") Individual Licence

Services licensable under this type of licence include bandwidth services, broadcasting distribution services, cellular mobile services, access application services and space services.

Content Applications Service Provider ("CASP") Individual Licence

This licence is required for the provisioning of content applications services such as satellite broadcasting, subscription broadcasting, terrestrial free-to-air TV and terrestrial radio broadcasting.

The new individual licences were issued to:

No.	Name of Licensee	Type of Individual Licence	Licence Issuance Date	Service Category
1	Numix Engineering Sdn Bhd	NFP & NSP	3 Sept 2009	Bandwidth services
2	Baraka Telecom Sdn Bhd	NSP	11 Nov 2009	MVNO
3	Star Crest Media Sdn Bhd	NFP & NSP	15 Dec 2009	Facilities & service provider for Media Prima
4	Pertubuhan Berita Nasional Malaysia (BERNAMA)	CASP	15 Dec 2009	Satellite & terrestrial radio broadcasting

Table 1 – New Individual Licences

SKMM also processed five applications for renewal of NFP and NSP individual licences, of which four were renewed by the Minister. One application for renewal was withdrawn. The renewed individual licences were for:

No.	Name of Licensee	Type of Individual Licence	Renewal Licence Issuance Date
1	Maxis Mobile Sdn Bhd	NFP & NSP	1 Oct 2009
2	Maxis Mobile Services Sdn Bhd	NFP & NSP	1 Oct 2009
3	Maxis International Sdn Bhd	NFP & NSP	1 Oct 2009
4	Maxis Broadband Sdn Bhd	NFP & NSP	1 Oct 2009

Table 2 – Renewed Individual Licences

Class Licence Issued under the CMA

A total of 38 applications were received for registration in the NFP class licence category, 34 applications for the NSP class licence category, 419 applications for the ASP class licence category and 29 applications for the CASP class licence category. The number of registrations for the various class licences for 2009 is as follows:

Class Licence	Number of Registered Licensees
NFP	24
NSP	24
ASP	394
CASP	28

Table 3 – Class Licensees

Application for Variation of Individual Licence Conditions / Transfer and Surrender of Individual Licences

In addition to new licence applications, SKMM also processed applications for variation of licences (i.e. variation of the special licence conditions) in 2009. One application was received for variation in the CASP individual licence category, which involved variation to the special licence conditions pertaining to the language of transmission.

With regards to the NFP individual licence category, applications to vary licences concerned the type of facilities that such licencees are permitted to provide, and the percentage of foreign shareholding permitted.

Two licencees surrendered their licences due to failure to commercially deploy services and changes in business plans.

Applications for Nominated Facilities providers

Pursuant to Section 130 of the CMA, the Minister may on the recommendation of SKMM determine that a licenced network facilities provider, other than the owner of the network facilities, be a nominated facilities provider for the network facilities, for the purposes of the CMA, if the Minister is satisfied that the nomination will not impede the achievement of the objectives of the CMA; and the administration of the CMA.

In 2009, TT Dotcom Sdn Bhd was accorded with a Nominated Facilities Provider status via the issuance of a Ministerial Determination.

Road shows on CASP class licences to all hotels in Malaysia

The main objective of this programme was to educate and inform all the hotel owners/operators about licensing requirements under the CMA, specifically with regard to 'in-house broadcasting activities' which would require registration under the CASP class licence category.

In 2009, SKMM undertook a total of ten road shows covering the Northern, and Eastern regions, as well as in Sarawak and Sabah. The briefings to the hotel owners/operators were done with assistance from Malaysian Association of Hotels (MAH). To facilitate further awareness and understanding by the public on the need for licensing under the CMA, SKMM will continue undertaking such road shows in other segments of industry such as to public transportation companies and restaurant operators.

Electronics Licensing Management System (e-LMS)

The e-LMS was developed to enhance the processing of class licence applications. The system enables the following:-

- Online class licence applications by external parties; and
- Licence fee monitoring by the Licensing Department.

e-LMS is expected to provide a positive impact on the industry as it will enable the industry to gain from this automation whereby registration, especially for the ASP class licences, will be processed in accordance with the client charter.

QUALITY OF SERVICE

The Commission Determination on Mandatory Standards (MS) for Quality of Service (QoS) are developed and implemented to ensure minimum standards of quality are offered to protect the right of consumers. There are seven services currently covered under the MS for QoS which were registered in 2002 and 2003:

1. Public Switched Telephone Network
2. Public Cellular
3. Internet Dial-up
4. Content Applications
5. Public Payphone
6. Digital Leased Line (reviewed in 2009)
7. Broadband Access (reviewed in 2007)

All service providers are required under the MS QoS to submit reports on compliance with the standards and these reports are randomly audited by the Commission. In a snapshot, below are the overall compliances of the reports submitted by the service provider for the reports submitted from 2003 to 2009:

Reporting Period	% of Compliance with the Standards	% of Non-compliance with the Standards
Jun 03	92.59%	7.41%
Dec 03	92.73%	7.27%
Jun 04	89.13%	10.87%
Dec 04	90.82%	9.18%
Jun 05	93.49%	6.51%
Dec 05	88.11%	11.89%
Jun 06	93.31%	6.69%
Dec 06	92.27%	7.73%
Jun 07	95.87%	4.13%
Dec 07	95.00%	5.00%
Jun 08	92.34%	7.66%
Dec 08	92.16%	7.84%
Jun 09	92.99%	7.01%
Dec 09	91.27%	10.04%

Rates Regulations

Rates regulations generally cover the rules and principles used in setting of retail price to end users. Rate monitoring on the other hand will cover the compliance by service providers to any rules and principles, market rates being offered and in particular regulated under the rate rules.

Communications and Multimedia Act, 1998 (CMA)

CMA	Description
Section 197	Rate setting by service providers:- a) service provider may set rates in accordance with the market rates b) to publish the rates charged to customers for one or more services
Section 198	Principles on rate setting:- a) rates must be fair and, for similarly situated persons, not unreasonably discriminatory; b) rates should be oriented towards costs and, in general, cross-subsidies should be eliminated; c) rates should not contain discounts that unreasonably prejudice the competitive opportunities of other providers; d) rates should be structured and levels set to attract investment into the communications and multimedia industry; and e) rates should take account of the regulations and recommendations of the international organisations of which Malaysia is a member.
Section 201	Rules regarding rates by Minister – Rates Rules 2002

Source: SKMM, CMA

Communications and Multimedia (Rates) Rules 2002

The Rates Rules 2002 sets out the prescribed level of rates to be charged for specified applications services. The rules covering the range of service charged and activities that comes under the Rates Rules 2002:-

1. Public Switched Telephone Network services – Charges for local call, national call and national calls through operator assistance.
2. Public Payphone Service – Charges local call, national call and national calls through operator assistance.
3. Service Charge for operator assistance
4. Charge for Internet access service
5. Charge for audiotext hosting service
6. Rental on exchange line
7. Connection fee
8. Reconnection fee

Retail Price Control

Retail price control have been an important part of the regulatory landscape in telecommunications as it is designed to protect consumers by reducing prices when competitive pressure alone is too weak. In markets that are characterised by monopolies of a few players (oligopoly), price tend to be high and the supply of services and facilities can be controlled easily resulting in bottlenecks in the upstream markets or downstream markets or both. As a result, service providers can price their products at prices above what would be set in a competitive market.

Telecommunications is a vital service for most organisations whether engaged in services or manufacturing. Fair and low prices are considered necessary to ensure the competitiveness of economic activities in these sectors. In globally competitive environment, it is therefore imperative that the cost of telecommunications services is competitively priced so that local providers of services and products can compete with those in other countries.

Rate control mechanism is normally employed in the above situations to ensure rates or tariffs are not artificially inflated or do not contain excessive economic rents (price is above the price that would be set in a competitive market) and that prices charged are fair and reflect underlying costs.

In short, the rate control mechanism is used in sectors that are exposed to monopolistic conditions and where regulations are required to promote national interest objectives and protect the consumer interest. It is also widely accepted theory that price regulation is a pro-competition measure necessary in the early stages of market liberalisation.

Assessment on Retail Price

1. **Fixed Line Telephone**
   SKMM found that there was compliance with the specific rates in terms of the line rental (access charge) and the call charges as published in website and customer service centers.

2. **Cellular Phone Service**

To make subscription affordable to the cellular phone users in Malaysia, mobile network operators have introduced varied plans that conform to the user preference in terms of monthly commitment fee, voice call rate and Short Messaging service (SMS) rate between the types of operators (on network or off network).

Based on SKMM monitoring on compliance to section 197 of the CMA, that is, on the rate setting and the requirement to publish rates, SKMM found that the service providers have made available the rates charged to its customer, normally on the websites, media advertisements, brochure and also through their customer service hotlines.

3. **Broadband Internet Access Service**

Across the country SKMM has witnessed growth in broadband adoption driven by greater price competition and increased consumer demand, as bandwidth-intense activities such as pictures and video uploading, video streaming and peer-to-peer sharing continues to grow. In order to increase price competition within Internet service providers, SKMM has issued 3G and WiMAX licences to seven companies. In total, 22 companies are providing an internet access service to individual and organisation. Service providers are constantly urged to provide broadband packages that are flexible and affordable so that more people can access broadband services.

Recently, many affordable packages have been offered, as below:

a) Maxis : RM48 for 1.5G data
b) Celcom : RM38 for 0.5G data
RM50 for 5G data for government servant and youth
c) Packet 1 : RM49 for 5G data
d) TM : RM38 for 384kbps and RM20 at underserved area

Required Application Services (RAS)

The Honourable Minister of Information Communication and Culture may determine a list of required application services and the list may include, but not limited to:

a) Emergency services;
b) Directory assistance services;
c) Operator assistant services; and
d) Services for disabled consumer

SKMM is currently developing a framework to determine required application services for disabled users and encourage their effective participation in normal activities. This aforesaid framework is an important document in that it is a statement of SKMM's commitment to and proposals for fulfilling the statutory obligations in compliance with Section 192 of the CMA.

ENHANCING ICT ETHICS AND EXCELLENCE

Consumer Forum's Activity

CfM was established in February 2001 and works on the basis of industry self-regulation with participation and representation from consumer associations, service providers and interested parties.

The CMA provides the legislative framework for self regulation by providing the following:

a) Power for the Commission to designate an industry body as industry forum on condition that the industry body fulfils certain specific criteria - Sections 94(1) and 94(2);
b) The CMA also envisages the designation of four (4) industry forums in the areas of content, consumer, technical standards and access;
c) Power for the Commission to register voluntary industry codes;
d) Safeguards provided should self regulation fails; both the failure of the forum and with regard to code compliance.
e) Section 189 provides that "The Commission may designate an industry body to be a consumer forum for the purpose of this Chapter".
f) "Chapter" here refers to Chapter 1 of Part VIII - Consumer Protection, containing 5 sections i.e. 187-191 which deal with consumer issues per se e.g. s.188 obliges service providers to deal reasonably with consumers and adequately address consumer complaints while sections 189-191 refer to the establishment of the consumer forum, matters for inclusion in the consumer code and the publication of the consumer code.

The Consumer Forum has been tasked with developing and managing the Consumer Code as provided for under Section 190 of the CMA. This provision states that the Consumer Code should include model procedures for:-

a) Reasonably meeting consumer expectations;
b) The handling of customer complaints and disputes including an inexpensive arbitration process other than a court, and procedures for the compensation of customers in case of a breach of a consumer code; and/or
c) The protection of consumer information.

The current office bearers of CfM are:

Chairperson	Tuan Haji Khairuddin Yunus
Deputy Chairperson	Puan Nor Esah Mohd Said
Secretary	Puan Normazalila Abu Bakar
Treasurer	Encik Lim Kim Seng

CfM's activities in 2008 covered the following areas:

1) Education and awareness

a. CfM undertook 63 educational and promotional events
b. Creating awareness regarding:
   - CfM's existence and its functions;
   - Rights of users as consumers;
   - Channels for complaints, disputes and grievances-handling;
   - The national policies in the communication and multimedia industry;
   - Eight GCC Awareness
c. Consumer Information Services

2) Complaints handling

a. CFM received a total of 1,324 complaints in 2009 with 718 cases being referrals from SKMM, 267 cases direct from complainants through CoP and 134 cases via the aduan@cfm.org.my. This represents an increase of 839% compared to only 141 complaints received in 2008.

In 2009, internet connection and poor speed top the chart followed by billing and poor service. In general, complainants were satisfied with the service provider's response and most cases were resolved and closed. Whenever applicable, the working committees will take the necessary action and make recommendation on changes, amendments, insertions or omission to the GCC and respective sub code.

b. Set up of Complaints Portal (CoP)
   - avenue for the public to lodge complaints to CFM and to get progress updates regarding their cases
   - set up of Alternative Dispute Resolution (ADR) as part of consumer protection mechanism. Expected to be operationalise in Q2 2010

3) Council meetings/AGM/EGM

During the year, the following meetings were conducted, namely:

- Annual General Meeting (AGM)
- Council Meeting
- Extraordinary General Meeting (EGM)

a. CFM successfully conducted three Council Meetings which were held as follows:
   i) 5 March 2009 (10th Council Meeting)
   ii) 4 September 2009 (11th Council Meeting)
   iii) 21 December 2009 (12th Council Meeting)

An AGM is held every year to inform CFM members of previous performance and future activities. Every two years, an election of council members for CFM will be undertaken in the AGM.

For 2009, the AGM was held on 20 October 2009 and was attended by 20 ordinary members and one associate member, of which, 12 were from the Supply Side while eight were from the demand side. A new set of Councilors were voted in, headed by Persatuan Pengguna Negeri Sembilan.

CFM has called for Extraordinary General Meeting, attended by 20 ordinary members. Previously, during the 11th Council Meeting, a resolution was raised to make amendments to Article 17(f) of the CFM Constitution.

As at 31 December 2009, CFM's membership stands at 32, comprising 12 from demand side, 17 from supply side and three as associate members.

Overall key postings and activities of CFM:

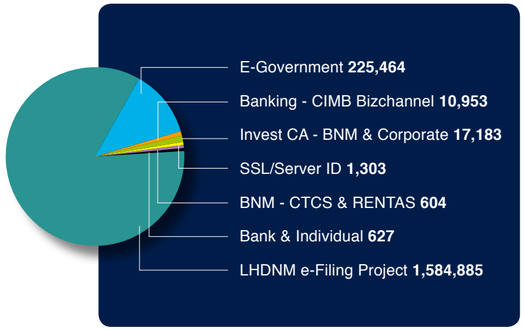
i) Executive Director was appointed in May 2009 on secondment basis from SKMM;
ii) CFM was relocated from Wisma Glomac in Kelana Jaya to Straits Trading Building in Kuala Lumpur in June 2009;
iii) Online Complaints Portal (CoP) was introduced to service providers in July 2009;
iv) CFM website revamp exercise was completed in August 2009;
v) CFM Secretariat reorganisation was completed in October 2009 to give it more focus;
vi) ConsumerInfo Series and CoP were officially launched in October 2009; and
vii) New Terms and conditions for CFM staff introduced in January 2010.

MARKET STRUCTURE FOR DIGITAL SIGNATURE MARKET IN MALAYSIA

DigiCert Sdn Bhd

DigiCert's biggest certificate issuance has been for the Inland Revenue Boards' e-filing services for income tax. The contribution of e-filing services towards total revenue is substantial and now accounts for 86% of its business. This is followed by E-Government Services via e-procurement. In 2006, the Bank Negara Malaysia (BNM) launched Enterprise PKI services and both DigiCert and MSC Trustgate were awarded the contracts to issue digital certificates. DigiCert has issued 532 digital certificates in total in the BNM-PKI Rentas environment.

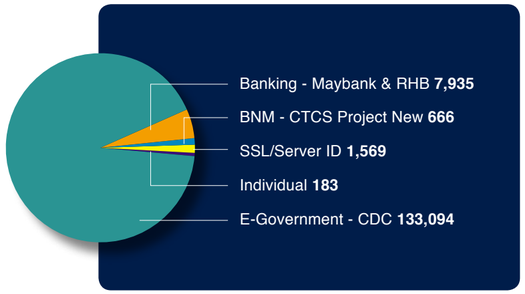
Market segmentation for DigiCert



Source: SKMM, 2009

Msc Trustgate Sdn Bhd

Msc Trustgate's biggest certifcate issuance was for the e-procurement services which forms 93.6% of their core business. This is followed by the corporate banking sectors. To date, Msc Trustgate has issued 666 digital certificates under BNM's Enterprise PKI Services.



Source: SKMM, 2009

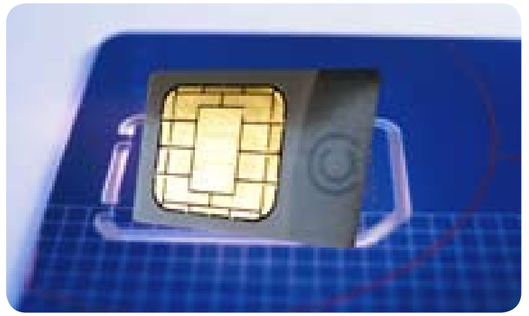
Current PKI Environment Sectors and Potential Market Growth

The Government sector is emphasising the use of electronic media. In 2007, the Electronic Government Activities Act was passed by Parliament. The Act gives recognition to electronic transactions as the equivalent of physical transactions and is expected to, over time, result in more use of the electronic media in the delivery of government services. It is envisaged that e-government transactions will progress from mere downloads to actual submission of documents. This will increase the need for secured transactions and authentication of documents. As shown by the implementation of e-filling by IRS, government applications have the potential of stimulating demand for digital certificates.

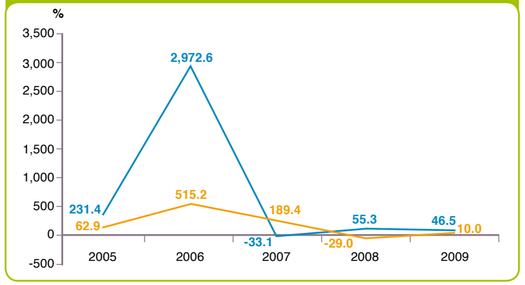
The Electronic Commerce Act that was enacted in 2007 is also expected to boost digital signatures. Although all forms of electronic signatures are recognised, where digital signatures are concerned, only digital signatures that are issued under the DSA are recognised. This again, should give an impetus to the domestic market for digital certificates.

The public sector has recently launched the 'mysms' platform as the gateway for government services via mobile phones. Currently, the services offered are mainly information based but could easily, given the right environment, progress to transaction type services requiring authentication.

Another factor that is expected to stimulate the demand for digital signatures is the implementation of High Speed Broadband (HSBB) and Broadband for the General Public (BBGP). The growth of broadband will stimulate electronic commerce including mobile commerce. The above factors can increase the demand for digital certificates.



Growth of Certificate Issuance (2005-2009)



Digital Certificates issued by MSC Trustgate and Digicert
Source: Industry, SKMM (Up to December 2009)

Development of Mobile Authentication Signing Services Platform (MASSP)

In December 2008, SKMM organised a mobile banking symposium to bring together industry players from telecommunication and financial sectors to deliberate on the future of mobile banking.

The establishments of mobile PKI in transaction eco-system were continued in 2009. The eco-system anticipates the participation of the mobile telephone service providers such as banks in M-PKI platform that will enable of PKI to authenticate M-transactions.

With the increased mobility of customers and their increased expectations for ubiquitous personalised services, mobile commerce seemed to be the next wave. Mobile phones in Malaysia will be provided with mobile identity through digital certificates provided onto its SIM Card.

The two-factor authentication and out-of-band will increase security and reduce phishing and man in the middle attacks. However, this can only be achieved if all parties such as banks, mobile operators and government participate in the eco-system.

SKMM and BNM are currently pursuing an on-going effort in this area in developing a common mobile banking platform for the banks. The working group will discuss the technology aspect for mobile banking, to identify new delivery protocol for the mobile banking (other than SMS and WAP) and explore a common authentication methodology for the banks to adopt. Mobile PKI has been mentioned as the preferred technology.

SKMM is the regulator for postal services in Malaysia. The Postal Services Act 1991 seeks SKMM to ensure the high quality conveyance of Postal articles and to protect the interest of users of postal services.

03

Postal Services

INTRODUCTION

SKMM is entrusted to regulate and develop the postal and express services industry. The regulatory functions include the determination of service performance standards, promoting competition and protecting the interest of users of postal services with the development role of promoting the expansion of postal and express services in line with the economic development of the country.

The Malaysian Postal and Express Sector Overview

The postal and express service is essential to the efficient functioning of the economy and society as a whole. Very few sectors in Malaysia come close to the level of physical connectivity with households and businesses, and retail network across the country like postal and express sector.

Postal and express service is the key to the socio-economic development of Malaysia

The postal and express service is essential to the efficient functioning of the economy and society as a whole. The industry is a multi-billion business with the annual revenue size of nearly RM3 billion, employs 34,000 people and served more than 6.3 million addresses nationwide, both in urban and rural area.

Each day postal and express service delivers more than 3 million pieces of items of various forms like letters, small packets, parcels and magazines. More than 10,000 postmen and couriers dedicated themselves for this cause.

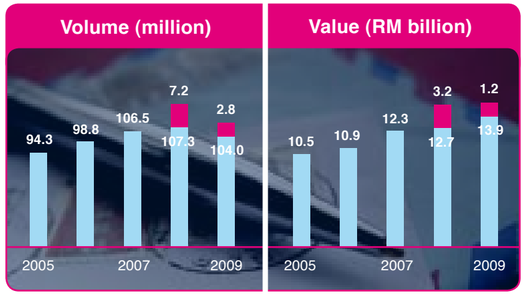
Universal Postal Service

Universal Postal Service remains the most accessible and affordable means of communication with more than 1,000 post offices nationwide

In 2009, there were 1,050 post offices, of which 699 are post offices and 349 are pos mini. The Post Office Network is important national infrastructure. It provides convenient access to various government and commercial services. Even though competition is getting intense for the post office in the digital era as a result of online payment in particular, it remains an important facility for the nation.

The number of transactions at the post office nationwide continues to grow. In 2009, more than 100 million transactions occurred at the post offices valued at more than RM15 billion.

Figure 1: Post office and post mini counter transaction



The country's number of post office and mail delivery network is demonstrated in Table 1.

Table 1: Malaysia's Post Office and Mail Delivery Network

Post Offices	699	PosLaju Centres	50
Post Mini	349	Posting Boxes	4,735
Postal Agents	227	P.O. Boxes	103,198
Stamp Vendors	5,087	Mail Processing Centres	32
Mobile Post Offices	1	Mail Delivery Branches	387

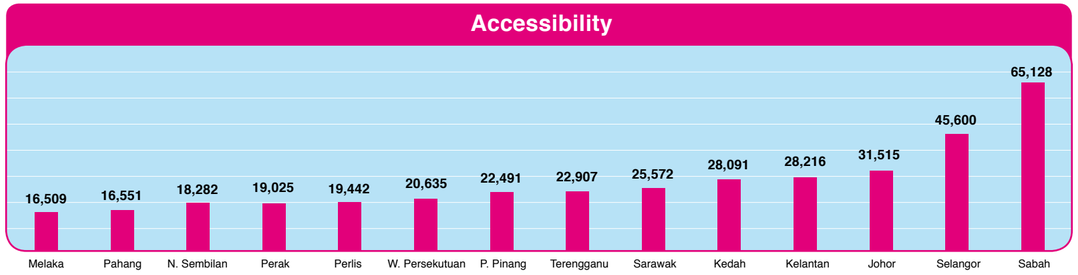
Figure 2: Mobile post office - Pos-on-wheels

Accessibility of Post Offices

Accessibility is essential as it provides access to its services and promotes economic growth. Accessibility is measured by the average population for each post office and pos mini per state.

The level of accessibility to postal services at the state level is presented in Figure 3. The figure shows that one post office serves between 17,000 and 60,000 people in each state with an average of 27,000 people nationwide.

Figure 3: Average population per post office by states in 2009



Postal Industry USP Programme

The Government has allocated RM1 million under the RMK-9 budget for the Postal Industry USP Programme (Program USP Industri Pos) for the developments of pos mini under the Projek Usahawan Pos Mini Luar Bandar (PUPMLB) and Peti Surat Komuniti programme in rural areas. The capital expenditure for the project is based on 50:50 basis between the government and Pos Malaysia.

The programme achievements under the Program USP Industri Pos RMK-9 in 2009 are:

a. Ten (10) new Pos Mini; and
b. One (1) Peti Surat Komuniti in Paloh 1, Gua Musang, Kelantan. The Community Mailboxes are equipped with 400 P.O. boxes serving 367 houses in the area.

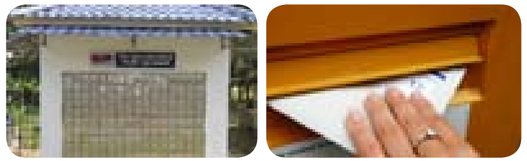


Figure 4: Community Mailboxes in Paloh 1, Gua Musang, Kelantan

Quality of Service

Domestic Mail Service Standards

On 1 August 2008, SKMM issued a performance standard for domestic letter service as part of its efforts to improve the quality of service.

The domestic letter service standard and performance target are shown in Table 2 and Table 3 below.

The service standard is divided into local and national delivery. The area is divided into Zone A (major towns) and Zone B (minor towns).

Table 2: Standard Performance of Domestic Letter

Category	Zone A	Zone B
Local Delivery	D + 1	
National Delivery	D + 2	D + 4

All local delivery services have D+1 (within one day of posting date) delivery standard, while the national delivery service is divided into two zones, whereas Zone A has a D+2 (within two days of posting date) delivery standard while Zone B has a D+4 (within four days of posting date) delivery standard.

Table 3: Service Standard

Objective	2008	2009	2010
Speed	88.0%	88.0%	88.0%
Reliability	99.0%	99.2%	99.3%

Note:
a. Speed refers to the percentage of the total test letters that comply with the performance required as stated in Table 1.
b. Reliability refers to the percentage of the total test letters delivered within the delivery standard of D + 7.

2009 Domestic Mail Performance below the Target

PMB 2009 performance is shown in Table 4 below. The performance was 17% below the speed objective and 0.9% below the reliability objective.

Table 4: Pos Malaysia 2009 performance

Objective	Pos Malaysia Performance 2009	Target 2009
Speed Objective	71.0%	88.0%
Reliability Objective	98.3%	99.2%

SKMM continues to monitor the measures taken by PMB in improving the service performance level. Among the improvement plans on the pipeline are:
a. The establishment of a new National Mail and Parcel Hub. The hub, which is expected to commence in early 2011, should improve the automation level of PMB;
b. Reviewing the sizing of the delivery area and postmen workload; and
c. Implementing system to strengthen the monitoring of mail collection from posting boxes.

Courier and Express Delivery Services

The Malaysian courier and express industry will be more competitive as the players expand their network and provide better services through business transformation exercises and higher utilisation of Information Technology such as 'Track and Trace' and RFID (radio frequency identification).

The sector is competitive as 105 operators were holding the licence as of 2009. The number of operators fluctuated between 100 to 120 over the last nine years. As the courier and express logistic markets are increasingly converging, many logistic operators have entered into the courier market segment and vice versa. Despite a competitive market, SKMM received 11 new applications and approved all of them.

The new courier licensees in 2009 are:
- Quick & Sure Express Sdn Bhd
- Bumi X (M) Sdn Bhd
- A To Z Worldwide Express Sdn Bhd
- Lettershop Sdn Bhd
- Sagawa Custom Brokerage (M) Sdn Bhd
- Fastrun Services Sdn Bhd
- Hexmann Logistics (M) Sdn Bhd
- Amber Courier Sdn Bhd
- Simple Strength Sdn Bhd
- AirAsia Berhad
- Yamato Transport (M) Sdn Bhd

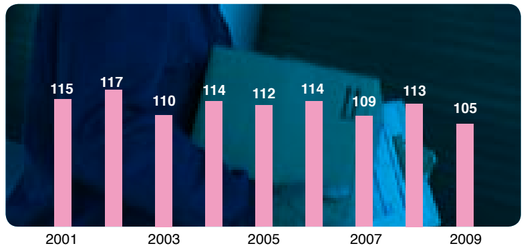


Figure 5: Number of Courier Service Providers (2001-2009)

Courier and Express Delivery Market remains competitive but dominated by top 10 major players who control more than 94% of the market share.

The top 10 players in terms of annual turnover are as follows:
1) Federal Express Services Sdn Bhd
2) DHL Worldwide Express Sdn Bhd
3) United Parcel Service (M) Sdn Bhd
4) Poslaju (the courier arm of Pos Malaysia Berhad)
5) City Link (M) Sdn Bhd
6) Nationwide Express Courier Services Bhd
7) TNT Express Worldwide (M) Sdn Bhd
8) GD Express Sdn Bhd
9) ABX Express (M) Sdn Bhd
10) Skynet Worldwide (M) Sdn Bhd

Postage Stamps

The Commission is responsible for regulating the issuance of postage stamps including definitive, commemorative and special issues of postage stamps and any other philatelic items in Malaysia pursuant to section 6(1)(j) of the Postal Services Act 1991.

2009 Stamp Themes

SKMM is instrumental in portraying the Malaysian experience through the formulation of the annual stamp issue. Through SAC, the Minister of Information Communications and Culture has approved 18 themes for stamps issuance in 2009.

Table 5: Stamp Themes Approved for 2009

Theme	Date of Issuance
Unique Birds of Malaysia	21 Jan 09
Silver Jubilee of the Reign of DYMM Tuanku Sultan Perak	3 Feb 09
Traditional Wedding Costumes	23 Mar 09
World Heritage Sites	9 Apr 09
Engineering Excellence in Nation Building	20 Apr 09
Palm Trees	19 May 09
Conservation of Nature	18 Jun 09
Traditional Houses	9 Jul 09
Tuber Plants	23 Jul 09
Malaysian Unity Series II - 1Malaysia	31 Aug 09
Malaysia's First Submarine - KD TAR	3 Sep 09
Energy Efficient Buildings	9 Sep 09
Caring Society	9 Oct 09
Installation of DYMM Tuanku Yang DiPertuan Besar Negeri Sembilan	26 Oct 09
State Definitive Series Collection – Garden Flowers	24 Nov 09
Arachnid – Stamp Week 2009	7 Dec 09

04

Universal Service Provision

It is our social responsibility to ensure that everyone, be they rich or poor, young or old, is empowered with basic telephony and Internet services in any part of the country. The ultimate goal of USP is to ensure that communities living in underserved areas are connected to mainstream Information and Communications Technology (ICT).

INTRODUCTION

The Universal Service Provision (USP) programme's main objective is to provide communication access to target underserved areas, localities, and groups within the identified community. The priorities are on collective access to basic telephony and Internet services followed by individual access for both services throughout Malaysia. It ensures that areas otherwise left behind in telecommunication development are given attention and enjoy the same facilities. Economic and social development can then take place if not on par at least not far behind the urban areas, thus ensuring the bridging the digital divide.The ultimate goal of this programme is to ensure that communities living in underserved areas are connected to mainstream Information and Communications Technology (ICT) development thus enabling and empowering these 'connected communities' and bring about socio-economic development for those communities in the various sectors such as agriculture, education, health, business, amongst others.

The USP programme initial purpose of bringing telephony services to the underserved areas now has added emphasis to bringing broadband and cellular services to these areas. ICT offers enormous opportunities to narrow economic and social inequities. Telecommunications has been recognised as one of the key drivers of development in rural areas enabling the local people to improve themselves in so many aspects.

CBC Expansion Phase 2

In addition to the previous USP Broadband Community Projects which includes CBC pilot and Phase 1, it has been further expanded into Phase 2 which covers 89 locations comprises four major telcos - TM, Digi, Celcom and Maxis. It was awarded on 15 April 2009 and the implementation started two weeks after that. The designated service provider was given a 24-week timeline.

Taking into consideration on the positive comments made by stakeholders on the previous CBC projects (pilot and Phase 1) during the community impact study on CBC rollout by USPD, bigger sites were recommended and approved by SKMM on CBC under Phase 2 which includes 20 personal computers (PC) as compared to 10 PCs before. However the IT requirements usually set back at the total population for each sites.

The new specifications and concepts for collective and broadband access service in the universal service target for CBC were further imposed.

New specifications focus on:

i. Broadband individual lines services for surrounding population (100 lines)
ii. Central Monitoring System (CMS) – data transfer/integration and reporting
iii. ICT enrichment training programme for CBC users
iv. Local content development for CBC's website
v. Strong ICT awareness, promotions and marketing on CBC

Status of CBC Rollout Phase 2 Expansion based on designated service provider as at 31 December 2009 Telekom Malaysia Berhad

No.	State	Universal Service Target	Location
1	Kedah	Sik	Kg. Sg Senam
2		Sik	Kuala Rumah, Jeneri
3		Bandar Baharu	Serdang
4		Bandar Baharu	Bagan Semak
5		Baling	Kg Lubuk Paku, Seberang Titi
6		Baling	Kg Batu 1, Kuala Ketil
7		Pendang	Bukit Raya, Tokai
8		Pendang	Felda Sg Tiang
9		Pendang	Kg Sungai Korok, Padang Kerbau
10		Pendang	Kg Air Puteh
11		Padang Terap	Kg Tanjung, Padang Terap Kanan
12		Padang Terap	Belimbing Kanan, Kuala Nerang
13		Padang Terap	Felda Lebok Merbau
14	Perak	Hulu Perak	Pekan Lenggong
15		Hulu Perak	Pekan Grik
16		Hulu Perak	Pengkalan Hulu
17	Pahang	Bera	Durian Tawar
18		Bera	Felda Bukit Puchong
19		Jerantut	Damak, Hulu Cheka
20		Maran	Kg Awah
21		Bentong	Kg Ketari
22		Rompin	Kg Setajam
23	Kelantan	Machang	Machang
24		Machang	Panyit
25		Jeli	Ayer Lanas
26		Jeli	Jeli
27		Jeli	Batu Melintang
28		Kuala Krai	Manek Urai
29		Kuala Krai	Mengkebang
30		Kuala Krai	Dabong
31		Tumpat	Palekbang
32		Tumpat	Kg Terbok
33		Tumpat	Pengkalan Kubur
34		Bachok	Melawi
35		Bachok	Jelawat
36		Bachok	Beris Kubur Besar
37		Gua Musang	Felda Chiku 3
38		Gua Musang	Bertam
39		Gua Musang	Gua Musang
40	Selangor	Hulu Selangor	Ulu Bernam
41		Hulu Selangor	Serendah
42		Kuala Langat	Kanchong Darat, Banting
43		Kuala Langat	Kg Bkt Changgang, Banting
44		Kuala Selangor	Jeram
45		Kuala Selangor	Tanjong Karang
46		Kuala Selangor	Bestari Jaya
47		Sabak Bernam	Sabak Bernam
48		Sabak Bernam	Sungai Besar
49		Sabak Bernam	Sekinchan
50	Johor	Kota Tinggi	Mukim Kota Tinggi
51		Kota Tinggi	Ulu Sungai Tinggi
52	Melaka	Alor Gajah	Masjid Tanah

Digi Telecommunications Berhad

No.	State	Universal Service Target	Location
1	Johor	Mersing	Triang
2		Mersing	Padang Endau
3	Pahang	Kuantan	Penor
4		Kuantan	Kuala Kuantan
5	Melaka	Jasin	Sg Rambai
6		Jasin	Umbai
7	Terengganu	Kemaman	Kg Ibok, Ulu Chukai
8		Kemaman	Bandar Cheneh
9		Hulu Terengganu	Bukit Diman
10		Hulu Terengganu	Kuala Berang
11	Kelantan	Tanah Merah	Felda Kemahang 3
12		Tanah Merah	Kg Gual Ipoh, Ulu Kusial
13	Sarawak	Lundu	Pekan Lundu

Celcom (M) Berhad

No.	State	Universal Service Target	Location
1	Sabah	Beluaran	Kg Bintang Mas
2		Beluaran	Kg Contoh, Kuala Sapi
3		Beluaran	Telupid
4		Keningau	Bingkor
5		Keningau	Sook
6		Kunak	Kg Kadazan
7		Kunak	Kg Pangi Hujung
8		Kunak	Pekan Kunak
9		Ranau	Kg Desa Aman
10		Ranau	Kg Lohan
11		Tongod	Pekan Tongod
12		Tongod	Kg Linayukan
13		Tongod	Kg Sogo Sogo
14	Sarawak	Kanowit	Rumah Benjamin
15		Kanowit	Kubu Emma

Maxis Communication Berhad

No.	State	Universal Service Target	Location
1	Kedah	Yan	Guar Cempedak
2		Yan	Yan Kecil
3	Sarawak	Bau	Kg Sibuluh
4		Bau	Kg Krokong
5		Daro	Pej Daerah Lama
6		Belaga	Sg Asap
7		Lubuk Antu	Batang Ai
8		Lubuk Antu	Pekan, Engkelili
9		Maradong	Pekan Meradong

CBC in Felda Settlements

On 1 December 2009, SKMM has awarded six licensees on the designation of universal service providers to roll out new CBC within 72 Felda Settlements for newly notified 36 USP targets.

The commencement date for the implementation began within the same date and was expected to complete within 16 weeks, i.e. by late first quarter 2010.

No.	State	Universal Service Target	Felda Area	Designated Service Provider
1	Johor	Sedenak	Bukit Batu	Celcom
			Bukit Permai	Celcom
			Inas Utara	Celcom
2		Sungai Tiram	Sungai Tiram	Danawa
3		Tebrau	Ulu Tebrau	Danawa
4		Kluang	Ayer Hitam	Celcom
			Kahang Barat	Celcom
			Kahang Timur	Celcom
5		Rengam	Bukit Tongkat	Celcom
			Layang-Layang	Celcom
6		Bukit Kepong	Maokil 1	eB Tech
			Maokil 2	eB Tech
			Maokil 3	eB Tech
			Maokil 4	eB Tech
7		Bukit Serampang	Sri Ledang	Redtone
			Bukit Serampang	Redtone
8		Lenga	Lenga	Redtone
9		Tangkak	Parit Hj Idris	Redtone
10		Gemas	Palong Timur 1	Redtone
			Palong Timur 2	Celcom
			Palong Timur 3	Celcom
11		Jabi	Pemanis 1	Telekom
			Pemanis 2	Telekom
12		Labis	Chemplak	Telekom
			Chemplak Barat	Telekom
			Redong	Telekom
			Tenang	Telekom
13		Sungai Segamat	Kemelah	Telekom
			Medoi	Telekom

No.	State	Universal Service Target	Felda Area	Designated Service Provider
14	Kedah	Temin	Bukit Tangga	Celcom
15		Karangan	Gunung Bongsu	Packet 1
16	Negeri Sembilan	Gelama Lemi	Titi	Telekom
17		Hulu Teriang	Ulu Spri	Telekom
18		Pertang	Pasoh 1	Telekom
			Pasoh 4	Telekom
19		Pedas	Pedas	Telekom
20		Kepis	Kepis	Celcom
21		Ayer Kuning	Bukit Jalor	Celcom
22		Gemas	Jelai	Celcom
			Pasir Besar	Celcom
			Sungai Kelamah	Celcom
23		Gemecheh	Bukit Rokan	Celcom
24	Pahang	Jenderak	Jenderak Utara	Telekom
			Jenderak Selatan	Telekom
25		Kerdau	Jengka 22	Telekom
			Jengka 23	Telekom
			Jengka 24	Telekom
			Jengka 25	Telekom
26		Semantan	Bukit Damar	Telekom
			Lakum	Telekom
27		Batu Talam	Tersang 1	Telekom
			Tersang 2	Telekom
			Tersang 3	Telekom
28		Gali	Krau 1	Telekom
			Lembah Klau	Telekom
			Lurah Bilut	Telekom
29	Perak	Slim	Gunung Besout 3	Telekom
			Trolak Selatan	Telekom
			Trolak Timur	Telekom
30		Sungkai	Gunung Besout 1	Packet 1
			Gunung Besout 2	Packet 1
			Gunung Besout 4	Packet 1
			Trolak Utara	Packet 1
			Sungai Klah	Packet 1
31	Perak	Ulu Bernam Timor dan Barat	Gunung Besout 5	Packet 1
			Sungai Behrang	Packet 1
32		Pulau Kamiri	Lasah	eB Tech
33		Ulu Ijok	Ijok	Packet 1
34		Chuping	Chuping	Celcom
35	Perlis	Titi Tinggi	Mata Air	Celcom
			Rimba Mas	Celcom
36	Terengganu	Belara	Belara	Telekom

Central Monitoring System

1. The objectives of the Central Monitoring System (CMS) are :
   i. To provide comprehensive monitoring of the site resources, users, usage, application used and human capital development;
   ii. To generate reports on all activities at the sites such as user reports, computer usage, computer and internet line condition and application used;
   iii. To centralise all the digital divide reporting structure for project research and development purpose;
   iv. To provide best system recovery solutions in order to manage computer resources at sites; and
   v. To provide day to day information and planning for all related activities in a digital divide programme such as central and on-site training and workshop through online project management features.

2. In 2007, SKMM has broadened the rollout of Internet service by introducing new projects under the USP programme to include the provision of collective Internet access service to community and libraries located in the designated underserved areas. The projects namely Community Broadband Centre (CBC) and Community Broadband Library (CBL).

3. SKMM managed to rollout 154 CBCs and 105 CBLs projects throughout Malaysia. Hence the total number of CBC and CBL currently stands at 259 sites.

4. Since the implementation of CBC and CBL projects, USP Division (USPD) manually monitors the operation of the telecentres, the utilisation of the facilities and the ICT training programme conducted in the telecentres; assisted by Regional Offices.

5. Hence, CMS is seen as a tool which helps to simplify and assists the management on digital divide projects in monitoring, implementation and planning of the USP's telecentres such as CBC and CBL programmes.

6. CMS is an integrated client-based and web-based solution that enables project management to facilitate swift dissemination of documents and reports across geographical boundaries via the Internet. The CMS ensures that all remote data are transmitted to enable reports to be generated by USPD on time.

7. In this system, all reports for monitoring purposes are divided into different parts with statistical reports. CMS installation progress, site ranking and programme progress are example of the monitoring reports. The reporting tools will be the greatest facility for the operation management in monitoring each project effectively.

8. All monitoring system at service provider's server will be integrated into one centralised server at SKMM HQ. This system is expected to complete within second quarter 2010.

USP Fund

The Universal Service Provision Fund (USP Fund) was established under the provision of Section 204 of the Communications and Multimedia Act 1998 (CMA) and is managed by SKMM.

USP Fund's sole purpose is for the implementation of network facilities, network services and applications services in the underserved areas and communities.

The Communications and Multimedia (Universal Service Provision) Regulation 2002 (USP Regulations) stipulates that contributions from licensees shall be based on three factors:
1) The list of designated services;
2) Weightage factors; and
3) 6% of weighted net revenue

As per Regulation 27 of the USP Regulations, all licensees (except for Content Applications Service Provider (CASP) licence holders, whose weighted net revenue derived from the designated services exceeds the Minimum Revenue Threshold of RM2 million in a calendar year shall contribute 6% of its weighted net revenue to the USP Fund.

USP Projects' claims in the form of Capital Expenditure (CAPEX) and Operational Expenditure (OPEX) from USP Fund are disbursed only to designated USP service providers upon approval from the Commission as provided in the USP Regulations.

USP Fund is presently placed in Fixed Deposits at licensed financial institutions. Interest received from the placement of USP Fund in Fixed Deposits is paid back to the USP Fund.

05

Research and Planning

Creating a relevant talent pool has become necessary in achieving Malaysia's goal to shift its economic focus from an industrial, to a knowledge economy. SKMM fully supports R&D across the communications and multimedia value chain in search for new ideas and in recognising the need to accelerate the transition from ideas and research to market of innovative services and products driving growth and value for the nation.

INTRODUCTION

Activities in research and planning are focused on areas of spectrum management, opportunities in the communications and multimedia market and industry statistics where data are acquired and analysed for market performance and as input to policy and decision making.

New knowledge acquired through studies and researches as well as new plans is shared with the industry through various platforms of industry engagement such as the consultative committees and working or discussion groups, industry briefing sessions, seminars and lecture series.

SPECTRUM RESEARCH AND PLANNING

Spectrum research and planning provide the basis to create a predictable environment for the current and future use of spectrum resource to achieve the National Policy Objectives. This involves key activities in two areas:

- spectrum policy and planning; and
- spectrum research.

SPECTRUM POLICY AND PLANNING

Spectrum Plan (SP)

The Spectrum Plan provides the Table of Frequency Allocation and policies on how the spectrum is assigned, reassigned and used in Malaysia as well as how we plan to use it in the near future. The current plan is the November 2006 Spectrum Plan and is issued under Section 172 of the Communications and Multimedia Act 1998.

Due to rapid development in wireless communications and demand for spectrum, the current Spectrum Plan which is already three years old is reviewed.

The review of the current Spectrum Plan was done based on the considerations below:

i) changes and updates of the ITU Radio Regulations based on the WRC-07 outcome;
ii) review and updates to the Standard Radio System Plans (SRSPs);
iii) usage of frequency to date including the AA database, Class Notifications, Spectrum Assignments;
iv) introduction of new and development of technologies;
v) international and border coordination;
vi) policy updates arising from the Spectrum Management Strategic Review; and
vii) current and future markets/industry development.

The Spectrum Plan review is expected to be completed in 2010 after going through the process of focussed groups and public consultation.

Standard Radio System Plan (SRSP)

The Standard Radio System Plan (SRSP) is a policy document describing regulatory and technical requirements in the use of a specific spectrum band by a particular wireless system or service. It is based on the allotment from the Spectrum Plan. SKMM has formed several working groups of which the members are from the Government sector, C&M industry and Institutions of Higher Learning (IHL), studying and reviewing the various SRSPs so that the documents are updated with current practices and methods. In 2009, SKMM revised and developed new SRSP documents as in Figure 1.0.

SKMM - New and Revised SRSP Documents

No.	Document No.	Title	
1	512	Requirements for Fixed Service Line of Sight Radio - Relay Systems Operating in the Frequency Bands	5925 MHz to 6425 MHz
2	513		6430 MHz to 7110 MHz
3	514		7111 MHz to 7425 MHz
4	515		7425 MHz to 7725 MHz
5	516		7725 MHz to 8275 MHz
6	517		8275 MHz to 8500 MHz
7	518		10.70 GHz to 11.70 GHz
8	520DMS	Requirements for Digital Multimedia Service (DMS) Operating in the Frequency Band 1452MHz to 1492MHz	
9	525	Requirements for Fixed Service Line of Sight Radio - Relay Systems Operating in the Frequency Bands	12.75 GHz to 13.25 GHz
10	526-		14.40 GHz to 15.35 GHz
11	527		17.70 GHz to 19.70 GHz
12	528		21.20 GHz to 23.60 GHz
13	532BWA	Requirements for Broadband Wireless Access (BWA) Systems Operating in the Frequency Band 2300 MHz to 2400 MHz	
14	546CCTV	Requirements for Wireless Closed Circuit Television (CCTV) Systems Operating in the Frequency Band 5650MHz to 5725MHz	

Figure 1.0 New and Revised SRSP Documents

National Spectrum Consultative Committee (NSCC)

NSCC is a umbrella forum led by SKMM that aims to facilitate consultation and focused advice on spectrum management strategic matters between SKMM, and different stakeholders or interest groups. The establishment of the NSCC provides a consultative platform involving all key stakeholders to ensure that strategic spectrum issues receive robust consultation as well as to improve on and supplement the existing public consultative process.

Existing industry group namely the Research Collaboration Panel (RCP), National Preparatory Working Group for World Radio Conference (NPWG) and the Industry Spectrum Consultative Group (ISCG) were re-organised parked under the NSCC. The newly formed groups that act as focused group consultations among the Government civil, Government defense police and industry users are shown in Figure 1.1 below:

Additional Four Groups
1. Spectrum Consultative Group for Government civil users (SCCfG)
2. Bilateral meeting between SKMM and Angkatan Tentera Malaysia (Bi-SAM)
3. Bilateral meeting between SKMM and PDRM
4. Industry Spectrum Consultative Group (ISCG)

Fifure 1.1 Additional Four Groups

National Preparatory Working Groups for World Radio Conference 2012 (NPWG-WRC-12)

The NPWG-WRC-12 was formed to take all necessary steps to assemble information to provide advice, technical analyses, and specific proposals on matters relating to the 2012 World Radiocommunication Conference and future related conferences.

The objective of NPWG WRC-12 is to provide the Ministry of Information Communication and Culture (KPKK) with advice, technical support, and proposals for the 2012 World Radiocommunication Conference (WRC-2012).

NPWG-2012 is a closed / by invitation only committee and is chaired by Chairnan of SKMM. Under the NPWG-2012, there are six NPWG-2012 Working Parties (WPs). The WP is an open forum, and each WP is responsible for groups of WRC-12 Agenda Item as shown in the Table 1.2 below:

Working Party	CPM Report Chapter	WRC-2011 agenda items	Desk Officers
1	Maritime and aeronautical issues	1.3, 1.4, 1.9, 1.10	Abdul Mubin Mohd Zain
			Mohamad Razif Azhari
2	Radiolocation and amateur issues	1.14, 1.15, 1.21, 1.23	Abdul Mubin Mohd Zain
3	Fixed, mobile and broadcasting issue	1.5, 1.8, 1.17, 1.20, 1.22	Ahmad Nasruddin ‘Atiqullah Fakrullah
			Shamsul Najib Mohtar
4	Science issues	1.6, 1.11, 1.12	Mohd Redza Fahlawi Mohd Abdullah
5	Satellite issues	1.7, 1.13, 1.18, 1.25, 7	Shamsul Najib Mohtar
			Rafeeza Rahim
6	Future work programme and other issues	1.2, 1.19, 2, 4, 8.1, 8.2	Syed Khairulazrin Syed Khairuldin
			Helida Akashah Kamaruzaman

Table 1.2

SPECTRUM RESEARCH

Taking leadership in spectrum management includes building human capital and resources in the areas of spectrum management. Towards this end, SKMM and designated institutions of higher learning (IHLs) have collaborated in various programmes or projects on spectrum management studies or research the spectrum environment. The Spectrum Research Collaboration Programme (SRCP) covers this task, and aims to improve the administrative, regulatory and technical expertise in spectrum management. This is done through promoting and funding research on spectrum management in collaboration with IHLs and the industry.

The SRCP programme started in September 2006 with the establishment of the Research Collaboration Steering Committee (RCSC). The RCSC responsibility lies in providing strategic direction, policy aspects, and determination of priorities, recommendations of collaboration projects to SKMM and to approve the annual operational plans of the SRCP.

Source: SKMM – Spectrum Research Colaboration Programme (SRCP)

The SRCP also promotes knowledge sharing and networking opportunities among collaborating members. This includes a web collaboration portal at www.spectrumresearch.com.my for sharing experiences, knowledge, research studies or findings among interested parties. The portal was operational in 2007.

The Objectives of SRCP
Serve as focal point of information, knowledge development and research and development activities related to spectrum management.
Develop SKMM knowledge resources; improve capability in spectrum management.
Provide platform for collaboration, sharing and exchange of knowledge, expertise and enhance capabilities to improve spectrum management.

Source: SKMM – SRCP Objectives

The SRCP governance structure is shown in Figure 1.3. A secretariat supports the two committees within the SRCP structure. Overall, the aim is to provide strong management and guidance in the research collaboration framework.

Secretariat and Committees Providing Guidance in the Collaboration	
The Two Committees RCSC and RCP	
RCSC Governs the SRCP, and chaired by Chairman of SKMM. Members include SKMM, KPKK, representatives from the communications and multimedia industry, government agencies, various stakeholders and Deputy Vice-Chancellors of Universities (Research Centres). RCSC roles are: Ensure integrity, transparency and independence of SRCP; establish and maintain world-class standards and reputation. Appropriate resource networks. Responsible for strategic direction, policy aspects, determination of priorities. Recommend collaboration projects to SKMM, approve annual operational plan of SRCP, including modifying SRCP mandate as and when necessary.	**Research Collaboration Panel (RCP)** Supports the RCSC. Members comprises IPTs and the industry who are elected by RCSC. The RCP advises, manages and monitors research programmes. RCP responsibilities include to : • Identify partnership programmes. • Identify appropriate existing resources within the programme parameter (including subject matter experts). • Develop programmes in collaboration with IPT. • Identify research topics and evaluate proposals. • Promote collaboration programme to achieve specified goals. • Manage and administer the collaboration programme. • Coordinate for optimal use of resource. • Advice the RCSC and SKMM on research projects and their status
Research Collaboration Secretariat (SRCP Secretariat)	
Supports the RCSC and RCP. Tasks include maintenance and update of web portal http://www.spectrumresearch.com.my	

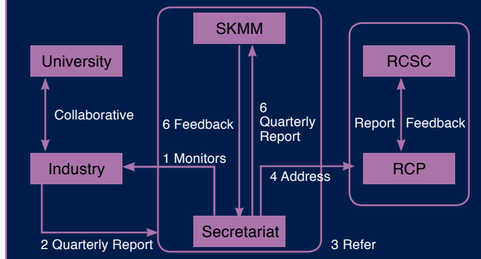
Table 1.3 Secretariat and Committees Providing Guidance in the Collaboration
Source: SKMM – Committees Providing Guidance in Collaborative Process

Collaboration of Parties in the SRCP

Collaboration is emphasised and facilitated within the SRCP. For example, once SKMM awards the research project through tender process, the universities and the industry in the research areas can connect and collaborate through a SKMM-hosted web portal. Universities and industry participants can form Research Collaboration Clusters for interaction with each other and with the Research Collaboration Panel and the SRCP Secretariat. The collaborative relationships are both local and international that includes regional and international institutions or universities.

Management Process in Research Collaboration

Research Collaboration Programme Management



1. Secretariat monitors progress of research projects by evaluating quarterly reports, conducting technical visits to University together with RCP and meeting research team, if necessary.
2. Research teams submit physical and financial progress report every quarter.
3. Secretariat compiles quarterly report and refers to RCP as well as any outstanding matters pertaining to the research.
4. RCP advises Secretariat on technical issues regarding the research. Also, reports research progress to RCSC during Steering Committee Meetings.
5. Secretariat prepares papers and reports to SKMM on research project progress, including advice and recommendations from RCP (if any)
6. SKMM acknowledge report; provide feedback to Secretariat, including proposed action for implemention (if any)

Figure 1.4 Functional Relation between the Parties in the SRCP
Source: Industry, SKMM – Research Collaboration Programme Management

Role of SKMM in the SRCP

- Allocates annual fund available for selected research and development projects. SRCP budget allocation varies from year to year and currently stands at RM1 million per annum. SKMM issues Request for Proposal (RFP) annually and projects are evaluated with RCP assistance. Final approval for all research and development proposals rests with SKMM.
- The Chairman of SKMM is the Chairman of the Research Collaboration Steering Committee.
- SKMM organises lecture series, conferences and other events in support of the SRCP.

Trend of Funding for Research Projects

Fund & Project	2007 RM (Million)	2008 RM (Million)	2009 RM (Million)
Total Fund Allocated	3.844	1.06	None
No. of project Approved	11	6	No new project. Efforts focussed on project monitoring and faciitation.

Source: SKMM, Fig. 5.35 Trend of Funding for Research Projects

Progress of SRCP Research Project 2007 & 2008 (based on earliest completion date)

No.	Research Topic	University	Duration (Months)	Completion Date	Current Status / Remark
1.	Issue of Spectrum Cost Versus Network Cost	UNIM	15 (13+2)	10 Dec 08 ●	• Project completed. Printed final report available at SKMM Knowledge Resource Centre (KRC). Discussion ongoing to engage University of Nottingham Malaysia Campus (UniM) to conduct study on opportunity Cost. • Presented at Lecture Series 02/2009
2.	Radio Frequency Radiation (RFR) Preliminary Study for WLAN Networks and Mobile Phone Base Stations in Malaysia	Uniten	15 (9+6)	31 Dec 08 ●	• Project completed. Printed final report available at SKMM KRC. • Uniten actively engaged by TSND for radiation awareness Campaign. • Presented at Lecture Series 03/2009
3.	Adoption, Appropriation and Impact of Wireless Technologies on Malaysia Society	UTM	22 (16+6)	30 June 09 ●	• Project completion approved by SKMM. • Final report in printing process. Work in progress to implement strategies recommended into 1Malaysia campaign • Presented at Lecture Series 05/2009
4.	Wireless System Coexistence in Extended C-Band	MMU	24 (18+6)	31 Jul 09 ●	• Project timeline reached, draft final report submitted and under evaluation.
5.	Issues on Reliable Communications at Frequencies Bands Above 25 GHz in the Tropics	UPM	24 (18+6)	31 Aug 09 ●	• Project timeline reached, draft final report submitted and under evaluation.
6.	Dynamic Spectrum Access Management System Using Cognitive Radio	UTM	24 (18+6)	31 Aug 09 ●	• Project timeline reached, draft final report submitted and under evaluation.
7.	Emerging Wireless Technology (Spectrum Needs for IMT - Advances in Malaysia)	UTM	24 (18+6)	3 Sept 09 ●	• Project timeline reached, draft final report submitted and under evaluation.

Figure 1.5 A Summary Status of all 17 SRCP Research Projects

No.	Research Topic	University	Duration (Months)	Completion Date	Current Status / Remark
8.	The Impact of Wireless Technology Among Malaysian	UKM	24 (18+6)	3 Sept 09 ●	• Project timeline reached, draft final report submitted and under evaluation. • Work in progress for UKM to Society present to broadband service providers. • Presented to Lecture Series 05/2009
9.	Synergising 2G, 3G and WIMAX	UM	24 (18+6)	30 Sept 09 ●	• Project timeline reached, draft final report submitted and under evaluation.
10.	Issue of Reliable Communications at Frequencies Bands above 25 GHz in the Tropics	MMU	26	31 Nov 09 ●	• Project timeline reached, awaiting draft final report for completion evaluation, reminder sent to submit draft report. • Due date : 28 Feb 2010
11.	Collaborative Spectrum Management System	UKM	12	31 Jan 10 ●	• Project timeline reached, awaiting draft final report for completion evaluation, reminder sent to submit draft report. • Due date: 30 April 2010
12.	A Strategic Model in Spectrum Demand Allocation and Spectrum Pricing	UUM	12	31 Jan 10 ●	• Project timeline reached, awaiting draft final report for completion evaluation, reminder sent to submit draft report. • Due date: 30 April 2010
13.	The Use of Frequency HF system	UTM	30 (24+6)	31 Mar 10 ●	• No progress report received yet.
14.	Sharing Studies between the Mobile Services and Other Services in 470-960MHz Frequency Band	UTM	18	31 Jul 10 ●	• Literature review completed, deterministic interference analysis in progress
15.	The Possibilities of High Altitude Platform Station Gateway Links Deployment in the 5850-7075 MHz in Malaysia	UTM	18	31 Jul 10 ●	• Literature review and interference analysis completed, deployment possibilities analysis in progress.
16.	The Effect of Emission Emission from Short Range Devices on Radio-Communication Services	UPM	18	31 Jul 10 ●	• No Payment report received. • SRCP Agreement has not been finalised yet.
17.	The Regulatory Measures to enable introduction of Software-Defined Radio and Cognitive Radio Systems	UTM	20	30 Sept 10 ●	• Literature review completed development of demonstration prototype is in progress.

Figure 1.5 A Summary Status of all 17 SRCP Research Projects

Key **Project Status**

- ● Project progress on track
- ● Project progress slightly delayed
- ● Project on hold / suspended
- ● Project progress unknown

Monitoring of Research Projects

Research projects are monitored closely. Each research team is required to submit a quarterly progress report to the SRCP Secretariat. The quarterly report (with detailed reporting) comprises physical progress of the project. This includes the financial report detailing expenses incurred.

In addition, RCP and SRCP Secretariats conduct monthly technical visits to each research university location on a rotational basis to check on progress of the projects. In this way, feedbacks are also obtained on the research work as well as audit on the research facilities or equipment acquired using the research fund. These activities ensure that research project is on course towards achieving intended objectives and provides an avenue for attending to any difficulties the researchers may encounter.

Research Monitoring Details

No.	Date	Activity	Details
1.	23/01/09	RCP Meeting & Technical Visit	RCP 01/09 Location: Universiti Malaya Progress presentation by UM Research Team
2.	27/02/09	RCP Meeting	RCP 02/09 Location: Digi HQ, Subang Hi-Tech, Shah Alam
3.	27/03/09	RCP Meeting	RCP 03/09 Location: SKMM Cyberjaya
4.	03/04/09	Presentation	Final Report Presentation by Uniten (0930am) Final Report Presentation by UNIM (0230pm) Location: SKMM Cyberjaya
5.	29/05/09	RCP Meeting	RCP 04/09 Location: Telekom Malaysia Research & Development Centre, Cyberjaya
6.	17/09/09	Meeting	Mobile Phone Strategy Workshop – UTM Research Team (Adoption, Appropriation and Impact of Wireless Technologies on Malaysia Society) Location: Kuala Lumpur
7.	30/10/09	Presentation	Final Report Presentation by UTM (Adoption, Appropriation and Impact of Wireless Technologies on Malaysian Society) Location: International Islamic University Malaysia
8.	23/11/09	Meeting	Research Collaboration Steering Committee (RCSC) Meeting Location: Marriott Putrajaya
9.	23-25/11/09	Colloquium	Spectrum Research Colloquium 2009 Location: Marriott Putrajaya

Source: SKMM

SRCP Colloquium 2009

The annual Spectrum Research Colloquium 2009 was held from 23 to 25 November 2009, at Putrajaya Marriott Hotel in Putrajaya. The event was officiated by SKMM Chairman. A total of 14 research teams presented their research projects, including recommendations based on their completed projects.

Lecture Series

SKMM also supports the SRCP through its Lecture Series, with distinguish speakers from the industry and the universities. They share knowledge, expertise and experience about spectrum. Through such events, researchers also exchanged views and issues on their projects. They sourced partnership or network with relevant parties from the industry, Government and other IHLs. The series is open to the public and attendance is free of charge.

In 2009, five lectures were conducted, with participations from foreign speakers, industry players and local universities. SRCP researchers who have completed their research projects presented their findings. This helped to enlighten the industry on a specific research issue or topic and created opportunity for further collaboration.

No.	Lecture	Presenter	Date
1	Spectrum rules OK: Wireless Communications from Submarines to Satellite	UTHM	1 Dec 06
2	Smart Antenna and Location-Based Services	UTM	21 Mar 07
3	Wireless Broadband Access: An Overview on Standards and Systems Trials in Malaysia	MMU and DIGI	12 Jul 07
4	Evolution to Next Generation Mobile Network	Maxis	17 Aug 07
5	Approaches in Re-farming of Spectrum and Spectrum Management	Telenor	16 Aug 07
6	Mobile TV	Qualcomm	4 Sept 07
7	Current activities within ITU-R towards IMT-Advance or 4G Systems	NTT DoCoMo	4 Oct 07
8	Set Top Box and Digital TV	RTM/MTSFB, NDS AP, Telenor Broadcast Hldg AS	21 Feb 08
9	WIMAX Technology and the Strategic Importance of Interoperability for Large Scale Deployment	WICHORUS Inc	5 Jun 08
10	Propagation Effect by Rain in Wireless Communications System	UTM	1 Aug 08
11	The Sentinels: Technologies and Spectrum Occupancies of Radars	ITUM	4 Oct 08
12	Unmanned Aerial Vehicle (UAV) : The Integration of UAV's Operation into Civil Airspace	USM	21 Nov 08
13	WIMAX Essentials; Technology, Interoperability, Deployment Challenges and Market Analysis Solutions, Inc	Awards	22 Dec 08
14	Mobile Broadband Evolution – HSPA + and LTE	Qualcomm	21 Mar 09
15	Spectrum Economics: Spectrum Assignment and Institutions. Introduction to Spectrum Auctions - Auction Design and Implementation: Why Auction Design And Spectrum Packaging Matter - Demonstration of Auctioning using Online - Simultaneous Multiple Round Auction using DotEcon's WebBidder Software System	 UNM DotEcon Ltd, London DotEcon & Telenor	 22 Apr 09
16.	- Radio Frequency Radiation (RFR) Preliminary Study for WLAN Networks and Mobile Phone Base Stations - Mobile Phone Radiation – Its Perception and Reality - Health Effects – Mobile Phones and Base Stations	UNITEN NM KKM	28 May 09
17	Digital Audio Broadcasting (DAB)	MTSFB	15 Jun 09
18	Wireless Technologies and US: The Impact of Wireless Technology Among Malaysian Society Adoption and Appropriation of Mobile Phone on Malaysian Society	 UKM UTM	 21 Aug 09

MARKET RESEARCH

In the fast changing landscape of the communications and multimedia industry globally and in Malaysia, there is a need to understand industry developments for proactive reasons to garner opportunities arising.

From this perspective, the SKMM market research concentrates on topical areas of development in the communications and multimedia industry. These are realized through market research reporting, and the conduct of conferences such as Communications and Multimedia Market Trend Conference and Market Brief Series event to provide a neutral platform for sharing industry views and market trends or tips in collaborative mode.

Market Research Reporting

The SKMM independent research on market trends and development are published in various types of SKMM market research reports and publications. These are in the form of Industry Performance Reports, special Industry Research Reports, Brief Industry Trend Reports, and newsletters.

Specifically, there is a newsletter highlighting the development of broadband in Malaysia including global trends that has been hopefully aptly named as MyBroadband. Overall, these report publications are done on regular basis, which may be annually, bi-annually, or quarterly.

In the year 2009, for market research reporting the industry developments in focus include as follows:

- **Industry Research Reports**
  - Advertising Development in Malaysia
  - Direct Mail – A New Area of Growth
  - Trunked Radio – Going Digital
  - DRM Development & Trends – An Ongoing Affair
  - Mobile Virtual Network Operators – The Redefining Game

  Essentially, the respective reports feature a brief overview of the stated markets, including views on international and domestic development, and growth within that industry segment. The analysis also covers a comparison of these market developments worldwide, and a review of the Malaysian markets in the area concerned. Also featured are impact to value chain due to the changing industry landscape in digitisation and convergence.

A flavor of the SKMM Industry Research Report is as shown below:

- **My Broadband Newsletters issued are:**
  - MyBroadband, volume 1, Number 1, June 2009
  - MyBroadband, volume 2, Number 1, September 2009
  - My Broadband, volume 3, Number 1, December 2009

  MyBroadband is a quarterly electronic publication that aims to provide awareness on the many benefits that broadband can bring and snap-shots of current broadband developments in Malaysia and abroad.

- **Brief Industry Trends Report (BIT)**
  - Brief Industry Trend Report for First Half 2009
    Featuring:
    - Green Telecoms: A New Force Making A Difference
    - Smartphone – Offering Promises Of Rich Applications

  The Brief Industry Trends Report is a new series bi-annual report, replacing the previous Communications and Multimedia Market and Financial Review Bulletins in 2008. The objective of the report is to identify topical interest areas on trends and developments in communication and multimedia industry.

Communications and Multimedia Market Trend Conference

Aside from independent market research reporting, the SKMM also conducted a Communications and Multimedia Market Trend Conference on 19 May 2009. The Conference saw active involvement from the captains of the industry, industry analysts and a participating audience comprising the communications and multimedia players and licensees, venture capitalists, investment bankers, various related ministries and agencies and other stakeholders.

All in all, the views on the communications and multimedia market development in Malaysia going forward in the year was effectively charted and shared in the progress of the event.

In the year 2009, a Market Brief Series event was held on 18 December 2009 in the SKMM auditorium. The event was an inaugural one conducted by SKMM. The objective of such an event is to provide the industry a platform for discussion of market trends and development on a specific area of interest.

This event focused on the topic of “Accelerating Mobile Ads in Malaysia”, with an audience comprising mobile service providers, content aggregators, industry analysts, advertising agencies and others with the same interest.

STATISTICS & KNOWLEDGE RESOURCE

The SKMM is the focal point of all Communications & Multimedia (C&M) statistics and indicators for the Commission, Industry and users at large. In addition to that, it stocks and maintains a Resource Centre with the latest resource in C&M be it in print, secondary storage media or online. The Knowledge Management initiative in SKMM is spearheaded through its five quick wins, knowledge sharing sessions and a world class C&M knowledge magazine.

Statistics has been acknowledged as the key input in evidence-based decision-making. The statistics and indicators collected and analysed by SKMM can be divided into two main categories viz Primary data and Secondary data & administrative records.

Primary data are data collected directly from end-users where such data pertaining to use, experience and opinions cannot be gleaned from administrative records of the licensees.

In 2009, the SKMM conducted its annual flagship surveys namely, the Hand Phone Users Survey, and the Household Use of Internet Survey. The former has an unbroken series since 2004, while the latter has an equally long run. The survey reports are a rich source of information and are eagerly awaited by Industry and other users and are published in a series called Statistical Briefs.

In addition to the two abovementioned surveys, the SKMM conducted two Mobile Broadband Surveys in 2009. These two surveys were instrumental in developing indicators of broadband penetration, where the national aspiration is to put broadband in 50% of all private households in the country.

Central to its success in carrying out scientific purpose-built surveys such as those mentioned above is the SKMM CATI Centre located in Kuala Lumpur. The centre was established in 2004. In 2009, the centre was expanded from its initial 20 booths to the present 50. With this expansion of capacity, the Consumer Satisfaction Survey which was formerly outsourced to market research firms was successfully brought home, resulting in considerable cost savings for SKMM.

The SKMM also boasts of a web survey capability and leveraged on it as the platform of the annual Licensees Survey in 2009.

Valuable data is also gleaned regularly via administrative records of licensees as well as SKMM internal sources. Such secondary data are collected together in the form of two statistical bulletins; "Communications & Multimedia; Selected Facts and Figures" for the C&M industry and "Postal & Courier Services; Selected Facts and Figures" for the postal and courier industry. The former was made available on a quarterly basis in 2009 while the latter on a half-yearly basis.

SKMM's statistical activities have gained recognition; internally, locally and internationally. Thus its advisory role is much sought after. In 2009, it helped make the Consumer Satisfaction Surveys, and the surveys done by participating local universities in SKMM's Spectrum Research and Collaboration Program veritable successes. Final year undergraduates majoring in statistics also eye internships with the SKMM. On the international front, the SKMM is an esteemed member of the Asia Pacific Internet Research Alliance (APIRA) actively serving on its board of directors since 2005.

The Resource Centre boasts a collection of 4,300 titles in 2009. This take the form of printed copies, secondary storage media and online subscriptions. The services of the Resource Centre are available to SKMM staff as well as Industry and researchers. Many take advantage of the customised search solution that yields results efficiently drawing from SKMM knowledge portals as well as those of Industry and those in the public domain.

The Resource Centre is poised to be the knowledge repository for SKMM and for industry. In 2009 it leveraged on its resources to jumpstart a knowledge management program banking on five quick wins. These are:

i. Creating repositories of information,
ii. Setting up effective networks for sharing information between employees to interact among themselves as well as with stakeholders,
iii. Formalised procedures to ensure that lessons learnt get passed along to others doing similar tasks,
iv. Promoting informal networking/connections between those who need it and those who can provide,
v. Establish more focused career-development and succession-planning programmes.

The fourth "Promoting informal networking/connections between those who need it and those who can provide" took the form of a friendly series called Tea-talk @ 3, an immensely successful informal knowledge sharing sessions among peers over refreshments. In 2009, 24 such sessions were held.

The flagship of the SKMM effort is the C&M knowledge magazine (dot)MyConvergence, published twice yearly, as was in 2009. This is a particularly significant effort as it draws contributors from both SKMM and Industry in congealing tacit knowledge to explicit knowledge. It has come to be recognised as world class with a huge following, locally and abroad.

To cater to readers all over the globe an online version is also made available at http://www.myconvergence.com.my

Feature Article:

MALAYSIA BROADBAND: LEVERAGE FOR NATIONAL GROWTH

Broadband is akin to utilities like water and electricity these days. The economic and social impact that come from the implementation of broadband are well documented in many countries. From advanced nations to developing nations, the arrival of broadband results in a change of lifestyle and gain in productivity. Broadband penetration is a catalyst for increased efficiencies in existing economic activities, and also generates new services, which contribute towards increasing the national Gross Domestic Product (GDP).

Broadband overcomes distances and allows citizens and businesses to participate in the global economy, in addition to creating a more cohesive regional networked economy. For a country like Malaysia, with advanced communications and IT services, the move towards a broadband culture is a natural next step.

By itself broadband is just a connection. However, it is a superlative enabler of national competitiveness and new media digitised lifestyle once users take up the content and applications services over this network – drawing new breadth and scope of activities from its usage. Applications that would not work on a dial-up or those that involve long waits run faster and better with broadband connections. Broadband is revolutionising all aspects of society. It is constantly evolving and improving and as it does so, it spurs new innovations such as in the way instant updated references are provided for mobile sales force to digital media storage and archiving facilities in the virtual cloud. Broadband is spawning services and applications that are changing how we do things.

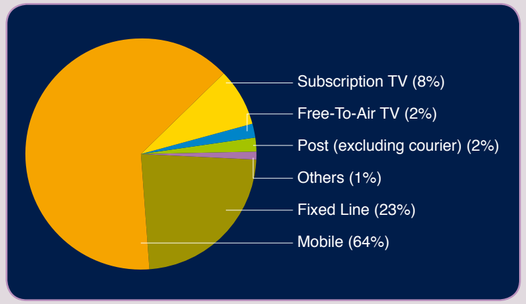
In the area of education, it is facilitating information sharing that spans distances from web conferencing in offices to the e-education of children in rural areas. It is changing the face of payment and banking services in for example, how we can now "wave" pay for our groceries in a hypermarket. Business to business trades are done on broadband connections, enabling virtual face to face dealings, and contracts signed electronically in the shortest time. Healthcare initiatives benefit from advanced data and diagnostic technologies to mobile monitoring of patients' health at the hospital and at home. At the personal level, entertainment and social networking are taken to whole new dimensions catering to the various demographic segments of Malaysian youth, office workers and the elderly.

Broadband is one of the mega trends driving the world forward in the 21st century and that too at a very fast speed. It has taken broadband just five years to achieve the level of global penetration which mobile telephony, a mega trend in the early years of the 21st century, took nine years to achieve. In short, broadband connectivity is now growing into a basic necessity for businesses, homes and individuals; be it through a fixed or mobile connection. The world is truly networked these days through large data pipes offering myriad content and service applications which enable people and businesses to live a modern lifestyle that goes beyond distances and make the world connectedly cosier to work, live and play in.

For the past 10 years, ever since SKMM was empowered to oversee the orderly growth of the Communications and Multimedia sectors as instituted under the Communications and Multimedia Act 1998 (CMA), the national regulatory policy has been towards liberalisation and the promotion of competition. This has led to the accelerated growth profile of the communications and multimedia industry in the last decade from over RM10 billion revenue generated in 1999 to over RM40 billion in 2009. We have yet to experience the full impact of its spillover effects into other industries, especially in the case of the enabling effects of broadband as one of the key enablers to sectorial drivers of a nation's competitiveness.

This direction is also one indicated in the Global Competitiveness Report 2009-2010 by the World Economic Forum, which prompts Malaysia to use ICT services to move into a knowledge-based and innovation-driven economy. An extract of the key message is in the diagram below.

Revenue by Services Market Segment (RM41 billion) 2009



Malaysia's Competitiveness

Global Competitiveness Rankings - Selected Countries

Country/Economy	GCI 2009-2010 Rank*	GCI 2009-2010 Score	GCI 2008-2009 Rank^
Switzerland	1	5.60	2
United States	2	5.59	1
Singapore	3	5.55	5
Japan	8	5.37	9
Hong Kong SAR	11	5.22	11
Taiwan, China	12	5.20	17
United Kingdom	13	5.19	12
Korea, Rep.	19	5.00	13
Malaysia	24	4.87	21
China	29	4.74	30
Thailand	36	4.56	34
India	49	4.30	50
Vietnam	75	4.03	70

* Out of 132 countries ^ The 2008-2009 rank is out of 134 countreis

Malaysia - Selected Factor Ranking

Factors	Rank	Score
Basic Requirements		
- Infrastructure	26	5.05
Efficiency Enhancers		
- Technological Readiness	37	4.51
- Higher Education and Training	41	4.49
Innovation & Sophistication Factors		
- Innovation	24	4.06

"Mirroring...economic success, Malaysia has featured prominently in the competitiveness rankings ever since its first inclusion in 1994. Indeed, it remains the most competitive Stage 2 (efficiency-driven) country. To maintain its competitive edge, Malaysia now needs to prepare its conversion into a knowledge-based, innovation-driven economy. Improving both the quantity and quality of higher education (41st) and boosting technological readiness (37th), particularly ICT penetration, would serve this effort well."

Source: World Economic Forum - Global Competitiveness Report 2009-2010

The Ninth Malaysia Plan 2006-2010 emphasises ICT and its related services as enablers to grow businesses and individuals. For example, digitisation of content and networked business processes can provide benefits of labour and time savings, as well as become a conduit to entrepreneurial development and innovation. Therefore, the Government is working hard to increase access to and use of ICT services and facilities. There is parallel emphasis to further enhance e-Government services, and encourage ICT applications usage through e-Commerce.

In line with national objectives, the SKMM is tasked to work with the industry on a key target of achieving 50% household broadband penetration by the end of 2010. This is amongst the strategic direction and plans in its revised framework for industry development that includes development and roll out of infrastructure and services, promoting communications and multimedia industry growth and bridging the digital divide.

While the Networked Content Development Grant (NCDG) programme supports the localised and local content development objective of the Ninth Plan, broadband development in terms of supply and demand follows a multipronged approach.

This is seen from the policy of using multiple technologies or a technology agnostic approach for steady rollout of broadband. Fixed broadband rollout is exemplified through the public-private partnership project of high speed broadband network with Telekom Malaysia Bhd. Telekom is also obligated through the access regime under the CMA to open up its network to peers and third parties. Fixed broadband effectively serves the high impact and major economic areas to support high end usage.

For the larger base of the population in urban areas and those outside the high impact and major economic areas, wireless broadband is the key to access high speed broadband services as it provides speed of supply and requires lower cost. Examples of wireless broadband services available in Malaysia today are through 3G/HSPA and WiMAX.

Through these combinations and of course, not forgetting the fixed wireless option in satellite and WiFi, and the collaboration of all stakeholders concerned can we see the national targets achieved therein.

In a holistic approach to "broadbanding" Malaysia, the National Strategic Framework for Bridging the Digital Divide as stipulated in the Ninth Plan is further promulgated through the set up of telecentres, promoting PC ownership, and increase in availability of more affordable ICT products and services. For the underserved areas, the Universal Service Provision programme kicks in.

Private Enterprise

The default broadband access level (that is, to the general population) being rolled out wherever possible aims to deliver broadband speeds of between 2 Mbps and 10 Mbps. Both wired and wireless broadband technologies are in use.

The fixed ADSL broadband technology is adopted by nearly 1.5 million subscribers by third quarter 2009; nearly double from 740,000 subscribers in 2006. ADSL is currently the most widespread broadband technology. At the beginning of 2007, the figure stood at 780,000 subscribers. This near doubling of subscribers in two years is a good gauge of the attractiveness of broadband. Most of ADSL connections are found in urban and semi urban areas as these are where copper telephony lines, which are required in ADSL, were already in place. ADSL subscribers numbered 1.5 million at the end of 2009.

Mobile broadband usage is increasing even more rapidly than wired access currently. There are two main wireless technologies that are bringing mobile broadband to the masses. 3G and its upgrades such as HSPA (and HSPA+) are offered by the 3G mobile service providers. The other emerging technology is WiMAX.

At the start of 2007, there were only 11,000 3G mobile broadband subscribers. By the end of 2008, the figure stood at 386,000 subscribers. The sharp growth continued with 3G mobile subscribers reaching 747,000 by the third quarter of 2009. WiMAX growth is still in early stages but

is on the rise too. P1, the leading player in the WiMAX wireless sector reported that its subscribers grew from 25,000 in Q2 2009 to over 36,000 subscribers in Q3 2009 which is an increase of over 40% , albeit from small base, in the period concerned.

The High Speed Broadband (HSBB) project which will bring high speed broadband in excess of 10 Mbps to high density economically critical areas is set to be implemented by Q1 2010. Under the Plan, the Government is partnering with Telekom Malaysia (TM) in a Public-Private Partnership (PPP) arrangement to implement the HSBB project. TM announced in December 2009 that it has started a trial involving 122 households of its HSBB services in Bangsar, Taman Tun Dr Ismail, Subang Jaya and Shah Alam. The aim is for commercial and retail availability of its HSBB services at the end of the first quarter of 2010 in the above-mentioned four selected areas.

Service providers, both wired and wireless are doing their part to drive demand for broadband. Fierce competition among both wired and wireless providers have driven broadband access prices down. Heavy advertising by all players too have increased consumer interest in broadband.

Content creation is also being addressed by service providers. Packet One sponsored the 15th Malaysia short film project early this year. Maxis is spurring content development through its Maxis Developer Programme. TM is building a content aggregation platform that will give smaller developers a platform to market their products. Celcom (M) Bhd (Celcom) has launched the League of Extraordinary Developers Challenge 2008 to encourage mobile developers in the country to develop innovative mobile solutions that are relevant in today's telco industry. The contest is a collaborative effort of Celcom with Microsoft Malaysia and Cradle Fund Sdn Bhd. To date, Celcom is targeting to commercialise 24 new mobile solutions from winners of the contest in 2009.

Government Support

The Government has various initiatives to address both demand and supply of broadband.

On the supply side, SKMM is utilising USP funds to bring broadband infrastructure to areas where demand is low. A technology neutral approach in this area ensures that every area where broadband access is being brought under the USP programme will receive the most suited technology for that particular area. Both wired and wireless technologies which also include VSAT are considered when implementing USP projects. New spectrum allocation was also accelerated to WiMAX service providers. To assist services rollout in underserved areas, SKMM enlist the assistance of state government in land acquisition through state-backed licensees who can then install towers for service providers' antenna.

In line with the national strategic plan to accelerate ICT services, recent national budgets saw the Government providing tax allowances for expenditure on last-mile broadband equipment. This includes the last mile network facilities providers being given an investment tax allowance of 100% on capital expenditure incurred for broadband. Import duty and sales tax exemptions are also given on broadband equipment and consumer access devices.

Home users too are being given incentives to install broadband. The current Budget of 2010 saw the Government propose giving taxpayers tax relief on broadband subscription fee up to RM500 a year. Also a netbook package with free broadband is offered to university students for RM50 per month for 2 years. For a start, this package will be offered by Telekom Malaysia to 100,000 local university students, effective 1 January 2010.

On the demand side, SKMM administers a Networked Content Development Grant (NCDG) that assists in funding content projects. A total of RM50 million is available under the NCDG grant programme. The Government is also enlisting other agencies into the campaign to spur content development. The Government has announced that it will set aside RM300 million for content industry development. MDeC is administering the Integrated Content Development Taskforce (ICON) funding programme that opens more funding opportunities to content developers. These content projects are expected to spur demand for content.

Another key initiative is the provision of citywide free WiFi in urban areas. Kuala Lumpur has a free WiFi programme that involves the setting up of access points at government buildings and popular spots. Over in Penang, the state government has launched Wireless@Penang project which is also aimed at giving Penangites free wireless broadband services. The Penang Project is coordinated by the state government but it involves no Government expenditure as private service providers are rolling out the infrastructure. Another development is that Miri town in Sarawak is WiFi-enabled to provide high speed Internet connection in support of personnel in multinational companies, for example, Shell, Petronas and others requiring such networked environment. Public safety is also enhanced through public safety agencies using this network.

At the same time, the digital divide is also not forgotten. SKMM is also mandated to work towards narrowing the inequalities of access that exists in underserved areas and populations. The USP programme is the key tool employed by SKMM in this regard. Household use of Internet is overwhelmingly prevalent in urban homes.

SKMM is addressing this issue by rolling out infrastructure in underserved areas. Since this alone will not spur broadband penetration, the Government is addressing the issue of affordability in these areas as well by subsidising broadband costs where necessary. However in many cases, cost is not the only deciding factor in driving broadband penetration. Awareness of the advantages of broadband is also crucial. To spur awareness and consequently drive demand, SKMM is using the community approach in these areas.

Under the USP programmes, community access programmes are seen as meeting two-fold objectives. Initially, these community access points will bring Internet access and user guidance to areas totally without Internet access, or where affordability of individual PCs or connections may be an issue. This will allow the population in the area to access services and applications that were previously not possible. Students are able to access education and information resources. Adults are exposed to work related material and applications. In area after area, where community broadband centres have been set up, tremendous response has been seen from the population, indicating that broadband is relevant to their lives.

This exposure to broadband is then expected to drive demand from the population where USP programmes have been implemented. Once they experience first hand the possibilities and convenience of broadband, citizens living in rural areas will be attracted to bring broadband to their homes thus addressing to some extent the issue of low broadband penetration in rural homes.

SKMM and other government agencies have various initiatives in enhancing community access in underserved areas. As of 2008, there are 85 Community Broadband Centres, 105 Library Broadband Centres, 42 Rural Internet Centres, and 58 Community Communications Development Programmes located all over the country with more planned to be set up.

Conclusion

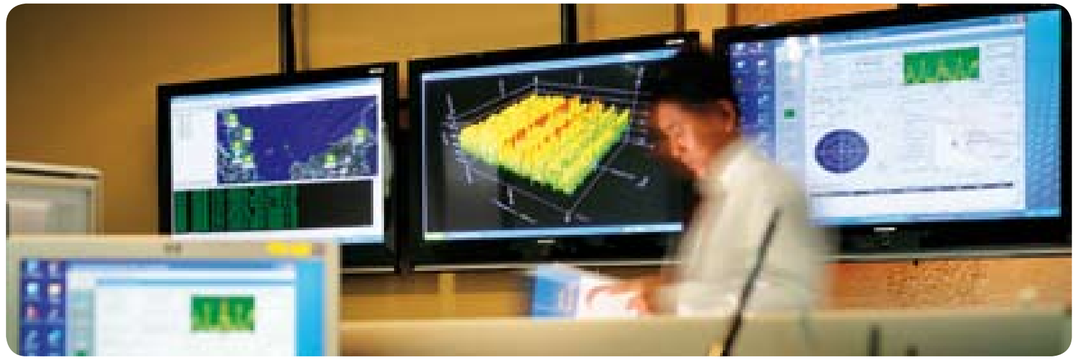
There is still a lot to be done but broadband is clearly a part and parcel of Malaysian lifestyle already. Access is still a challenge for rural areas where infrastructure is still not fully available. Cost is another issue that will have to be addressed over time but history has shown that costs in the ICT sectors fall sharply over time when the services are widely available. Therefore, cost is perhaps a self-solving problem as demand increases to a certain threshold level to allow economies of scale in supply to kick-in. Nevertheless, all stakeholders, including consumers, have to work very hard to ensure the threshold is reached fast.

With that, more Malaysians will bring broadband to their homes, especially this year, and in the next year. The only caveat is that service providers must maintain service quality so that these consumers get the right experience from the word "go".

SKMM's role in resource management involves provision of responsive and regulated approach to meet the needs of the licensees, government agencies and public at large. The spectrum and numbering resources are managed within the regulatory frameworks and guidelines set forth nationally and internationally, to promote efficient usage of these resources.

06

Resource Assignment and Management



RESOURCE ASSIGNMENT MANAGEMENT

This section provides report on the works and activities carried out by Resource Assignment Management Department (RAD) in 2009. This report covers all matters related to Spectrum Assignment (SA), Apparatus Assignment (AA) and Class Assignment (CA) for the year 2009.

Types Of Assignment

1. Spectrum Assignment (SA)

IMT2000 Spectrum Assignment

The number of base stations for IMT2000 SA installed by all the operators in 2009 is 8,697. The number of base stations installed by Celcom, UMTS, U Mobile and Digi according to regions are listed below:

Region/Operator	Celcom	UMTS	U Mobile	Digi
Northern	531	686	64	160
Eastern	425	331	-	2
Central	1326	1532	894	568
Southern	531	699	3	42
Sabah	257	81	-	89
Sarawak	330	101	-	45
Total	**3400**	**3430**	**961**	**906**

Table 1: Total base stations for SA

Revenue collected from SA was RM 29.5 million from Celcom, UMTS, U Mobile and Digi in 2009. The collected fees are from Annual Maintenance Fee. Details of the collections are as shown in the table below:

Operator	Maintenance Fee (RM)
Celcom	13,905,360
UMTS	10,810,800
U Mobile	4,357,920
Digi	462,000
Total	**29,536,080**

Table 2: Fee collection

2. Apparatus Assignment (AA)

This section describes the applications, collections and activities related to AA in 2009.

AA Applications for year 2009

RAD processed 23,237 new applications in 2009. 74,451 applications for first renewals, and 78,937 second renewals were processed. A total of 11 Licensing Committee Meetings (LCM) papers were presented for approval in 2009.

The number of applications processed in 2009 is outlined below:

Type of Application	Total of Application
New Applications	23,237
1st Renewal	74,451
2nd Renewal	78,937
Total	**176,625**

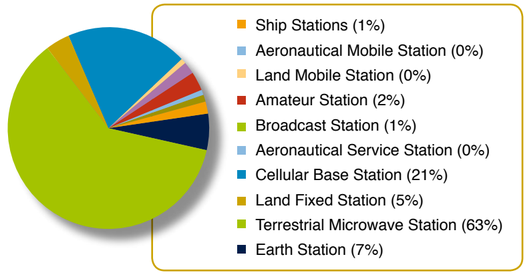
Table 3: AA applications

RAD processed 10 types of AA. The table below gives the breakdown on the number and type of AA processed in 2009 while the pie chart shows the graphical distribution.

Type of Apparatus	Total of new applications	Total of 1st renewal	Total of 2nd renewal
Ship Stations	759	200	396
Aeronautical Mobile Station	9	26	56
Land Mobile Station	128	486	256
Amateur Station	1,915	5	212
Broadcast Station	171	190	392
Aeronautical Service Station	6	243	249
Cellular Base Station	35	21,877	21,617
Land Fixed Station	2,939	2,785	2,504
Terrestrial Microwave Station	15,997	44,578	47,916
Earth Station	1,278	4,061	5,339
Total	**23,237**	**74,451**	**78,937**

Table 4: AA Applications by type of apparatus

Figure 1: AA applications by type of apparatus



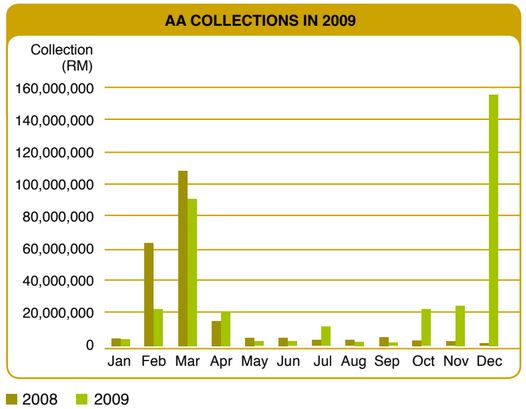
Revenue from AA

A total of RM355.5 million was collected for AA processed in 2009. The collection increased by RM140.6 million compared to the previous year, 2008. In order to align the AA yearly expiry date to 31 December, renewal exercise was carried out twice in 2009 compared to 2008. As a result, the revenue collection increased two-fold. The AA income was included under Spectrum Fees in the Financial Statements. The recognition of income is based on accrual basis over the licensee periods granted. The monthly collections since early 2009 are as shown in table and graph below:

Month	Year 2008 (RM)	Year 2009 (RM)
January	4,032,896	3,508,444
February	62,965,472	21,343,762
March	107,705,563	89,590,161
April	14,629,851	20,304,264
May	3,587,013	2,228,961
June	4,267,402	2,144,033
July	3,009,695	10,702,046
August	3,349,441	2,678,843
September	6,665,073	1,638,016
October	3,129,964	20,696,104
November	1,240,143	24,678,275
December	379,710	156,063,931
Total	**214,962,223**	**355,576,840**

Table 5: AA fee collection

Figure 2: Monthly comparison of AA collection



Alignment of AA expiry date

RAD performed the alignment of AA expiry date on 23 December 2008 for major renewal process. This first batch of alignment was performed to adjust the renewal for all AAs which expired on 31 March 2009 to a new expiry date, which is 31 December 2009 (nine months). The first batch of alignment covers 90% of AA applications and the majority of the AA holders are the Telcos. The first alignment batch contains 49,229 applications amounting to renewal fee of RM62,287,896.

The purpose of alignment of expiry date is to standardise the SKMM's year end financial statement as instructed by Licensing Committee (LC) on 31 July 2008 and recommended by Finance Management Committee. The alignment process is shown below:

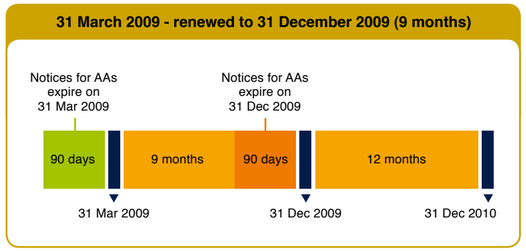


Figure 3: Alignment of expiry date

This alignment exercise involved all Telcos in which, all Telcos will experience two times renewal in the adjustment year 2009. Due to that, the Telcos will have to pay the renewal fee twice, which is before 31 March 2009 and before 31 Dec 2009.

The Commission on 28 April 2009 has approved a 'one time' application fee waiver to all AA holders. This approval is given to ease the burden of AA holders in paying the application fee twice for year 2009.

For the year 2009, RAD has performed eight batches of AA expiry date alignment.

Fixed Wireless Access (FWA) 10.5GHz

An invitation notice for FWA 10.5 GHz was published on 2 March 2010, which announced the opening of frequency band from 10.15 GHz to 10.30 GHz and 10.50 GHz to 10.65 GHz for Fixed Wireless Service.

There were six submissions received at the closing of the notice on 2 April 2010. Each successful bidder is allocated with 28 MHz x 2 at the selected geographical areas (GA) subject to certain term and conditions. The successful applicants and spectrum blocks allocated are as shown in the table shown on the next page.

Table 6: FWA 10.5GHz Allocation

Applicant	Blocks	GA
TT Dotcom Sdn Bhd	Block A Lower: 10.154 - 10.182 GHz Upper: 10.504 - 10.532 GHz	Nationwide
Maxis Broadband Sdn Bhd	Block B Lower: 10.182 - 10.210 GHz Upper: 10.532 - 10.560 GHz	Kuala Lumpur, Putrajaya, Selangor, Pulau Pinang & Johor
Celcom Sdn Bhd	Block C Lower: 10.210 - 10.238 GHz Upper: 10.560 - 10.588 GHz	Nationwide
Digi Tele-Communications Sdn Bhd	Block D Lower: 10.238 - 10.266 GHz Upper: 10.588 - 10.616 GHz	Kuala Lumpur, Putrajaya, Selangor, Pulau Pinang & Johor
U Mobile Sdn Bhd	Block E Lower: 10.266 - 10.294 GHz Upper: 10.616 - 10.644 GHz	Kuala Lumpur, Putrajaya, Selangor, Pulau Pinang, Johor, Perak & Melaka

A total of 80 AAs were issued for FWA 10.5 GHz spectrum band at the end of 2009.

Trial Applications

Trial Application on Broadband Wireless Access (BWA) in 3.3GHz

On 20 February 2009, RAD participated in station commissioning for BWA in 3.3 GHz conducted by Redtone-CNX Broadband Sdn Bhd at Menara Olympia, Kuala Lumpur. The objective of the trial was to evaluate the performance of BWA Base Station (BS) and Customer Premise Equipment (CPE). It was also to test the interference possibilities with other services as this frequency band is also used for radio-determination system. The CPE locations for the trial are as shown in the figure below:

Figure 4: Base Station (Hub) and CPE Locations

Redtone used equipment manufactured by Aglotel Group of Companies. The frequency used was 3370 MHz using Time Division Duplex (TDD) with a 10 MHz bandwidth. The result of the trial at the CPE sites ranged from 12 Mbps to 26 Mbps. At the early stage, there was no interference complaint received pertaining to this trial.

Subsequent to this trial, Redtone submitted for a bigger scale trial application in August 2009. The trial plan was to install 31 base stations in Wilayah Persekutuan Kuala Lumpur & Selangor, Pulau Pinang, Johor, Pahang and Negeri Sembilan. The approvals of these new applications were put on hold due to the interference complaint with Fixed Satellite Service, which was received in September 2009.

Trial Application on Broadcasting Service

On 11 March 2009, RAD participated in station commissioning for T-DMB trial conducted by Sistem Televisyen Malaysia Berhad (TV3) at Bukit Sungai Besi, Kuala Lumpur. The trial was conducted for six months and three programmes were fed into the transmission. The particulars are as follows:

Station Name	Tx power (W)	Tx (MHz)	BW (kHz)	Programme/ Data Rate
Bukit Sungai Besi	400	183.64	1536	**TV** • TV3 / 512 kbps **Visual radio** • Text, pictures / 160kbps **FM radio** • HotFM / 120kpbs

Table 7: T-DMB trial details

Aside from that, RAD also received application to conduct a trial using Digital Audio Broadcast Plus (DAB+) technology in Klang Valley from Jabatan Penyiaran Malaysia (RTM). Initially, the application was received on 8 June 2008. However, due to uncertainty of budget, the application was deferred. After the tender for DAB+ was awarded, SKMM approved the application on 1 June 2009.

The DAB+ was intended to cover Klang Valley and a limited number of receivers were included in the project. The project was to engage the public as well as to test and evaluate the capability of the DAB+ transmitters to be received via existing VHF TV aerial system. The details of the DAB+ trial are as follows:

Station Name	Tx power (W)	Tx (MHz)	BW (kHz)
Menara Kuala Lumpur	1000	218.640	1536

Table 8: DAB+ trial details

Trial Application on Mobile Service

Two applications from Mal-Tel Communications Sdn Bhd to conduct a digital trunk radio trial were received. The trial was approved for six months period and details are shown below:

Station Name	Tx (MHz)	Rx (MHz)	BW (kHz)
Menara Kuala Lumpur	427.625 427.875 428.125	417.625 417.875 418.125	12.500 12.500 12.500
Mal-Tel office (headquarters)	428.375 428.625 428.875	418.375 418.625 418.875	12.500 12.500 12.500

Table 9: Digital trunk radio trial details

RAD received five applications to conduct a trial using WCDMA 900 technology. The trial details are shown below:

Applicant	Station Name	Tx (MHz)	Rx (MHz)	BW (kHz)
Maxis Mobile Sdn Bhd	Country Home	928.4	883.4	5000
	Country Home Rawang	928.4	883.4	5000
	Country Homes	928.4	883.4	5000
	PlusRawangHighway	928.4	883.4	5000
Celcom (Malaysia) Bhd	Subang Hi-Tech	936.4	891.4	5000

Table 10: WCDMA 900 trial details

Besides the trials application mentioned above, several other trial applications were received. All trials were approved in accordance to Guidelines for Trial, Experimental and Demonstration Systems (SKMM/G/05/09). The table below shows the summary of the trial applications.

Applicant	Station Name	Tx (MHz)	Rx (MHz)	BW (kHz)
Telekom Malaysia Bhd	Bukit Klang	464.225	464.225	25
System Consultancy Services Sdn Bhd	Mahsuri International Exhibition Centre	867.2125	822.2125	25
System Consultancy Services Sdn Bhd	Gunung Mat Cincang Cable Car Station	867.2125	822.2125	25

Table 11: Other trial details

FM Radio Station Commissioning

Any newly approved FM radio application will be allowed to transmit under trial on 'Non Interference Basis' to the existing service for one year. Once the RAD deemed that there has been no interference to the existing service, a normal AA will be issued. In 2009, RAD was involved in the station commissioning twice before issuing the normal AA. The details of the activities are shown below:

Licensee	Station Name	Frequency (MHz)	Date
Malaysia Airports (Sepang) Sdn Bhd	Peringat, Kelantan	107.4	24 Feb 2009
Rimakmur Sdn Bhd	Gunung Jerai, Kedah	106.9	25 Jun 2009

Table 12: Station commissioning

Issuance of new callsign and Maritime Mobile Service Identification (MMSI)

RAD issued call signs to Amateur, Aircraft and Ship services. For Ship station, RAD also issued MMSI numbers to be used for ship electronic identity. The new call signs and MMSI numbers issued in 2009 are shown in the table below:

Service	Number of Call sign issued	Number of MMSI issued
Maritime	973	759
Aircraft	124	+
Amateur	695	-
Grand Total	**1,792**	**759**

Table 13: Total issuance of call sign & MMSI

Application by Government

RAD also received various types of AA applications from the government agencies.

The table below provides the summary of the applications from the government agencies:

Agency	Service	No. of AA
Agensi Penguatkuasaan Maritim Malaysia	Radiolocation	4
Jabatan Laut Semenanjung Malaysia	Non Directional Beacon (NDB)	4
Jabatan Laut Wilayah Selatan	VHF Mobile	7
Jabatan Pelajaran Malaysia	VHF Mobile	62
Jabatan Penerbangan Awam	Aeronautical radionavigation Non Directional Beacon (NDB)	111 15
Jabatan Penyiaran Malaysia (RTM)	Analogue TV FM Radio	4 17
Jabatan Perhutanan Sabah	VHF Mobile Radio	8
Jabatan Perpaduan Negara & Integrasi Nasional	VHF Mobile Radio	1
Kastam Diraja Malaysia	Microwave Link	4
Kem. Penerangan Komunikasi dan Kebudayaan	UHF Mobile Radio	10
Majlis Keselamatan Negara	Digital Trunk Radio (GIRN) Microwave Link	1,544 1,201

Agency	Service	No. of AA
Markas Angkatan Tentera (ATM)	Radar	8
Polis Diraja Malaysia	Microwave Link	358
Pusat Kokurikulum Negeri Sembilan	VHF Mobile Radio	1
Pusat Kokurikulum Pahang	VHF Mobile Radio	1
Universiti Islam Antarabangsa Malaysia	TVRO	1
Universiti Malaysia Sabah	VHF Mobile Radio	1
Universiti Multimedia	VSAT	4
Universiti Sains Malaysia	Experimental Station	2
Universiti Teknologi Malaysia	UHF Mobile Radio HF Mobile Radio	31 4
Universiti Teknologi MARA	UHF Mobile Radio	1
UniversitiTeknologi MARA, Kampus Perak	UHF Mobile Radio	1
Universiti Utara Malaysia	UHF Mobile Radio Analogue TV	3 4
Total		**3,443**

Table 14: Application by government agencies

Radio Inspection

RAD conducted periodical site inspections and frequency verifications at the radio transmitter stations in order to ensure each AA holder complies with technical specifications, terms and conditions as stated in the AA certificate.

In 2009, RAD performed site verifications exercises at 11 areas nationwide and a total of 2,802 apparatus were verified in 2009. The result of the inspection exercises are tabulated in table below:

Area	Date (2009)	No. of AA Verified
AA Verification and Site Inspection in Pahang and Terengganu	12-16 Jan	181
AA Verification and Site Inspection in Sabah	19-23 Jan	154
AA Verification and Site Inspection on WiMAX 2.3 GHz nationwide	22-28 Jan 13-17 Apr	784
Radio Inspections & Commissioning, Broadcasting transmitter in Kelatan	23-26 Feb	6
AA Verification and Site Inspection in Southern region (Johor & Melaka)	27-30 April	127
AA Verification and Site Inspection in Sarawak	25-29 May	501
AA Verification and Site Inspection in Central region (Kajang, Cheras & Rawang)	22-24 Jun	395
AA Verification and Site Inspection in Northern region (Sungai Petani, Alor Setar, Kuala Perlis & Langkawi)	17-21 Aug	518
AA Verification and Site Inspection for TV and FM Radio Transmitter in Sabah and Sarawak region	19-23 Oct	38
AA Verification and Site Inspection for TV and FM Radio Transmitter in Southern region	23-26 Nov	66
AA Verification and Site Inspection for TV and FM Radio Transmitter in Central region	9-10 Dec	32
TOTAL		**2,802**

Table 15 : Radio inspection activities

Guideline for trial, experiment and demonstration

Updates and revisions made for the Guideline for Trial, Experiment and Demonstration Systems are necessary to provide information for experimental and demonstration application procedure to the public.

A standard practice, guidelines are normally maintained and revised periodically from time to time.

In December 2009, the guideline has been updated to reflect the changes in rules and procedures related to the AA application.

The Guideline for Trial, Experimental and Demonstration Systems can be viewed in SKMM website as follows:
http://www.skmm.gov.my/link file/fact figures/codes gl/codes/pdf/Guideline SKMM G 05 09 Trial Experimental Demonstration.pdf

Third Party Authorisation (TPA)

Section 167 (1), Act 588 of the CMA and Regulation 25 of the Communications and Multimedia (Spectrum) Regulations 2000 provide that an apparatus assignment holder may authorise a third party to operate its network facility.

There are criteria, processes, document required and fee payable to enable TPA to be operated.

Generally, the criteria for the third party authorisation are as follows:

a) The AA holder must possess a valid Apparatus Assignment certificate;
b) The third party must possess a Network Facility Provider licence or is exempted from holding NFP licence as specified under Order 3 of Communication and Multimedia (Licensing)(Exemption) Order 2000;
c) The third party have never had its third party authorisation revoked in the last two years; and
d) The third party have never had its apparatus assignment revoked in the last two years.

The AA holder shall notify SKMM in writing of its intention to authorise the third party and submit relevant documents and the fee of RM20 will be payable for the variation of the apparatus assignment.

The TPA document has been in SKMM website since May 2009. It can be viewed at paragraph 5.2 in the Guideline For Apparatus Assignment as follows:
http://www.skmm.gov.my/link file/what we do/spectrum/apparatus/Guideline AA form v3.pdf

Training for regional staff on microwave and private network

Reiterated from the decision to decentralise microwave application processing to Regional Offices (RO), RAD has conducted series of meeting and coaching exercises in particular to all Regional Offices officers who are involved in processing AA at regional level. The meeting objectives were to discuss on microwave application processing and to develop the skills and knowledge required for RO officers to perform technical analysis using SPECTRAemc tool.

The objective was to have a focus and more flexible coaching method to ensure the efficiency and effectiveness of the session is fulfilled.

Below is the summary of coaching conducted in 2009:

Quarter	Meeting	Agenda	Participation
Q1	Decentralising Microwave application processing to Regional Offices	Microwave Processing	Northern RO, Sabah RO & Tawau Branch
Q1	Decentralising Microwave application processing to Regional Offices	Microwave Processing	Eastern RO
Q1	Decentralising Microwave application processing to Regional Offices	Microwave Processing	Sorthern RO & Sarawak RO

Table 16: Coaching series

Another coaching exercise that RAD conducted was on Maritime and Private Network services. The objectives were to share new spectrum band plan for private network and maritime and to share experience/ issues relating to the topics. This event was held in SKMM Cyberjaya with the participation from Regional Office Officer.

Under the Malaysian Economic Stimulus announced by the Prime Minister YAB Dato' Sri Mohd Najib Bin Tun Hj Abd Razak in 2009, there are four main distribution of fund allocated for the Government. One of the funds is allocated to reduce unemployment and initiate new employment opportunity for the amount of RM2 billion.

Through this fund, the Skim Perkhidmatan Singkat (SPS) was initiated by the Ministry of Information Communication & Culture.

On 5 August 2009, ten officers under this scheme reported for duty in SKMM under RAD. All officers are working under contract until 31 December 2010. For the first three months, all the officers were given training on all aspects and scope of works of the department.

The scope of training included on principle knowledge, business rules and regulation on the following applications:

- Private Network
- Telemetry
- Radionavigation
- Amateur station

All the SPS officers are also exposed to RAD application system mainly the Spectrum Management System (SpMS), e-spektrum online application submission and SpectraEMC technical analysis tool.

Cross Functional Process Review (CFPM)

In August 2009, SKMM through our Organisational Development Department had engaged with Motorola University to conduct Cross Functional Process Review (CFPM). The purpose was to optimise or improve the work processes in SKMM. RAD had been selected to participate in the study as to improve the processing of AA for approval.

One senior staff was nominated to represent RAD for the study and for Motorola University Green Belt Certification. The objective for RAD was to reduce its client charter from current 60 days to 45 days. To be more focused, a team of five staff had been created and decided that the scope of improvement was on the approval of new applications for Microwave Services as there was previous study conducted internally in May 2009 as reference.

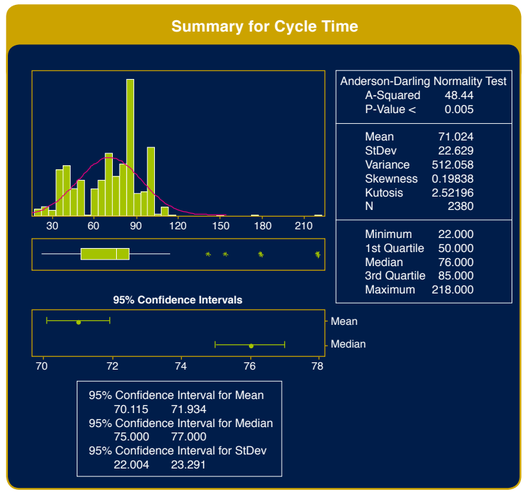


Figure 5: Cycle time for Microwave AA Approval

The initiative had to go through five phases (Define, Measure, Analyse, Improve and Control). Initial findings for the month of September 2009 showed that the current processing time was around 72 days. With the number of applications received by the Microwave Unit and the limited number of staff handling the application, it was critical to make the process much leaner. Through the study, the team had identified and proposed the solutions for improvement are as follows:

a) The implementation of the applications developed internally by one of the staff to reduce the time required to verify an application;
b) Clearing of backlog by optimising the SPS staff;
c) Better supervision through close monitoring (appointment of a P5 staff for the unit);
d) Delegation of approval to a committee headed by RAMD instead of having to go to LCM; and
e) Absorption of SPS staff to ensure the sustainability of the improvement.

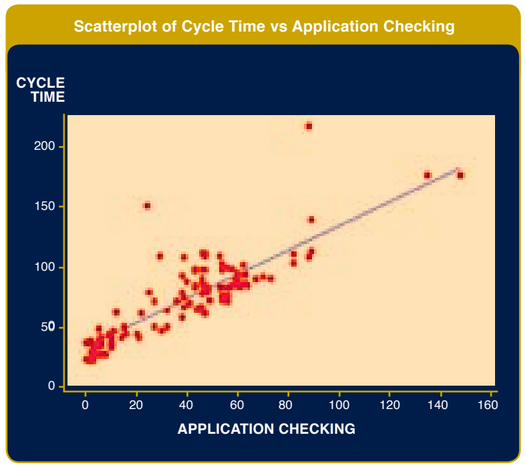


Figure 6: Scatter plot diagram shows that verifying an application had the strong correlation with the AA processing cycle time.

Correlations: Cycle Time, Application, Complete List,...

	Cycle Time	Application Chec	Application Proc
Application Code	0.829 0.000		
Application Proc	0.199 0.000	-0.271 0.000	
Compile List	0.626 0.000	0.410 0.000	-0.009 0.658
List ready for	-0.274 0.000	-0.509 0.000	0.600 0.000
List ready for L	0.449 0.000	0.600 0.000	-0.552 0.000
	Compile List	List ready for	
List ready for	-0.287 0.000		
List ready for L	0.400 0.000	-0.697 0.000	

Cell Contents: Person correlation
P-Value

Figure 7: Correlation analysis using the Pearson Correlation Method

The first two solutions were accepted and implemented. For the third proposal, a tracking database had been created to monitor the processes as there were some difficulties in implementation of the original proposal. For the fourth solution, it was changed from having to go to LCM bi-monthly as there were difficulties in getting the delegation of authority. RAMD later formed a committee to expedite the process in December 2009. The new target as directed by the Chairman was all AA approvals to be completed in 20 working days.

The SPS officers had a significant impact as all backlog had been successfully cleared by mid-December 2009 as well as the lead time to process an application. This was something that had never been successfully achieved by RAD due to shortage of manpower. Their role is still important prior to the migration to SpectraPLus in order to sustain this achievement.

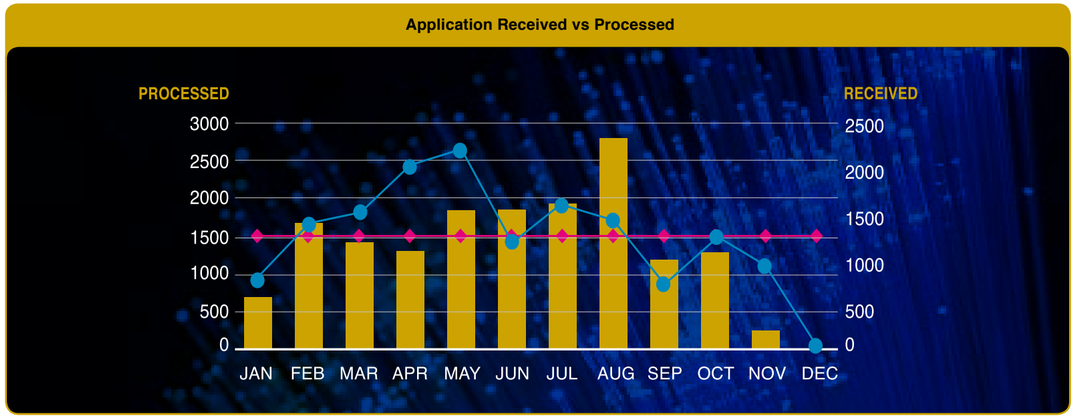


Figure 8: Graph showing the application received vs processed in 2009

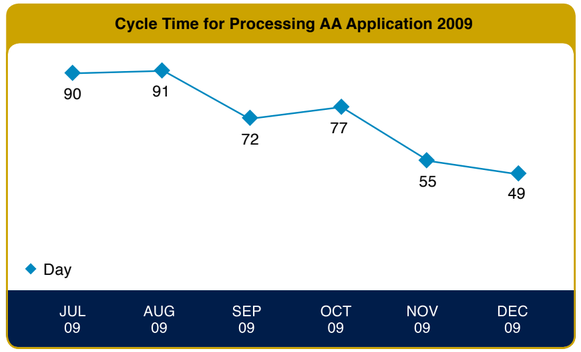


Figure 9: Reduction in AA approval cycle time since the implementation of CFPM

Migration of Spectrum Management System (SpMS)

The current SKMM's Spectrum Management System (SpMS) known as Automated Frequency Management System (AFMS), has been in use since 1990, when spectrum management function was carried out by Jabatan Telekomunikasi Malaysia (JTM). In order to leverage and improve the spectrum applications processing, RAD has planned and started the Migration Project of SKMM's SpMS to the Spectra Enterprise Solution system.

Most of the time reduction will be achieved through automated data entry and validation, done by the applicant via e-Spektrum (the online AA application we-portal). The new system will also increase efficiency in the technical analysis and information retrieval tasks. A more efficient SpMS system will increase customer satisfaction and increase SKMM's annual collections.

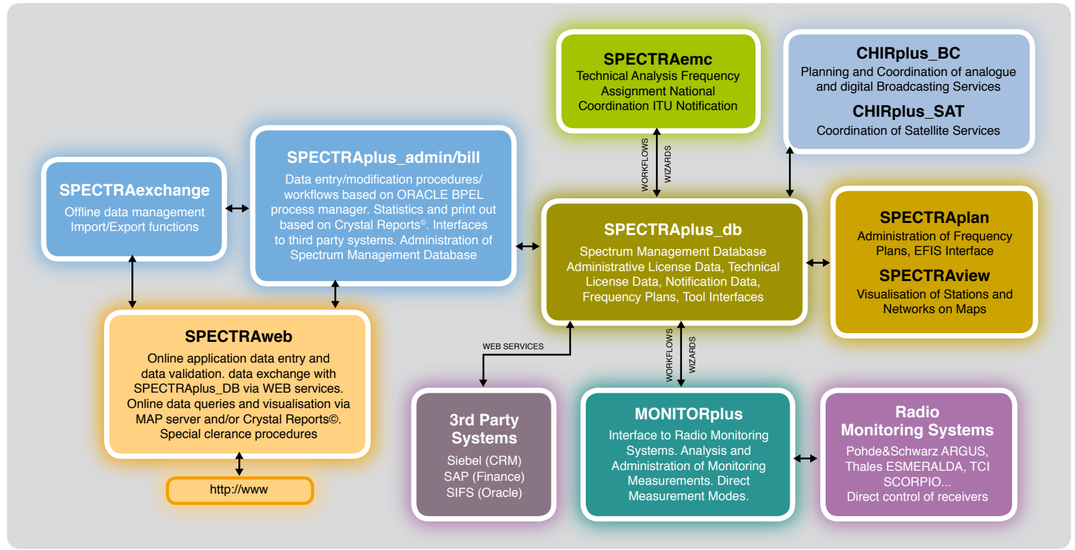


Figure 10: New SpMS System

Bilateral Meeting with Ministry of Defence (Markas Angkatan Tentera Malaysia)

Bilateral Meeting with Mindef was held periodically to discuss issues on spectrum utilisation and requirement for defense applications. For 2009, two meetings were held as follows:

Date	Venue
8 - 9 April 2009	Tawau, Sabah
9 -10 November 2009	Kuching, Sarawak

Table17: Bilateral Meeting

Bilateral Meeting with Royal Malaysian Police (PDRM)

Bilateral meeting was also held with PDRM to coordinate the use of radio frequencies for the Police communications network.

Awareness Programme

RAD has scheduled work plan for Awareness programme throughout 2009.

Among the target audience are private network companies which are dealing with AA and Regional Offices office who involved in processing AA application.

Month	Audience
Feb 2009	Pusat Teknologi Pendidikan Kota Bahru
Mar 2009	Private network, Amateur and Ship Operator in Northern Region (Penang)
Apr 2009	SpMS, e-Spektrum application functional and technical briefing for SISD staff
	Private network, Amateur and Ship Operator in Sabah Region (Kota Kinabalu)
	Maritime and Private Network in Southern Region (Johor Port)
May 2009	Private network, Amateur and Ship Operator in Central region (Shah Alam)
Jun 2009	eSpektrum for Wimax operator
Jul 2009	Private network, Amateur and Ship Operator in Eastern Region (Kijal, Kemaman) & Sourhern Region (Mersing)

Table 19: Awareness programmes

Installation of PCs in respective RO

In preparation for the decentralising of microwave Apparatus Assignment (AA) processing to all Regional Offices (RO) in 2009, every RO requires a high–end computer with at least 1 GB of RAM to execute the usage of the SpectraEMC license in order to perform the technical analysis study.

RAD has purchased and delivered the installed one high-end PC and one Spectraemc dongle at each RO with the assistance of SISD in October and November 2009.

3. Class Assignment (CA)

The new Class Assignment was approved on 25 August 2009 and it consists of 25 schedules, of which eight were new schedules. The new schedules are as follows:

New Schedules
• Radio frequency identification device
• Active medical implant
• Aeronautical mobile telemetry access device
• Mobile satellite access device
• Satellite broadcasting receiver device
• Terrestrial television broadcasting receiver device
• Terrestrial radio broadcasting receiver device
• One-way radio pager broadcasting receiver device

Table 20: New Schedules

To accommodate the additional requirements for the existing widely-used device, there are also amendments, additional frequency bands and update of technical parameters made for the existing schedules. The updated schedules are:

Updates Schedules
• Cellular mobile access device
• Short range communications device
• Personal radio Service Device
• Cordless Telephone Device
• Wireless access device
• Very small aperture terminal
• Security device
• Wireless microphone device

Table 21: Updated Schedules

The new CA document can be downloaded from: http://www.skmm.gov.my/link_file/registers/cma/ClassAssignment/pdf/CA_01_April_2010.pdf

SPECTRUM COORDINATION

International Technical Coordination

International Technical Coordination (ITC) activities involve coordinating assignments of radio frequency spectrum on space satellite systems and terrestrial systems with foreign authorities and the International Telecommunication Union (ITU). These activities comply with provisions in the Radio Regulations (RR) of ITU which is the international regulation that regulates use of frequencies across the world.

The ITC focused on managing the coordination of Malaysian space satellite networks under the MEASAT series with priority on completion of coordination for MEASAT filings at 5.7E and 46E, in line with MEASAT's operations and launch plans.

1. **Space Satellite Systems: Requests for Coordination Published by ITU International Weekly Circular**

   300 responses to requests for coordination for space satellite systems published in the ITU International Weekly Circular were processed during 2009 as shown below:

Jan - Dec 2009	Total 2009	2009 Target
No. of networks processed	350	250

Table: Requests for Coordination

These responses were communicated to the countries concerned and thereafter, coordination was carried out on a bilateral basis to reach agreement that ensured the concerned satellite networks could co-exist without causing harmful interference to one another.

2. **Intersystem Satellite Coordination Meetings**

   Intersystem Satellite Networks Coordination (ISNC) meetings were scheduled to resolve outstanding issues on harmful interference between affected satellite networks belonging to other countries and the MEASAT Satellite networks. A total of eight meetings were held in 2009 with the Administrations of Thailand, Indonesia, Japan, Iran, Russia, France and the United State of America. Coordination was also carried out through correspondence with Pakistan.

   Detailed coordination was carried out for each of the frequency assignments of the affected satellite networks. Upon completion of coordination, ITU will be notified by both parties and the process of registration at the Master International Frequency Register will follow thereafter.

   Details of the meetings that were held from January until December 2009 are shown in the table below:

Date (2009)	Country	Venue
25 - 29 March	Thailand	Bangkok, Thailand
11 - 14 May	Indonesia	Cyberjaya
13 - 16 July	Japan	Cyberjaya
12 - 16 October	Iran	Cyberjaya
2 - 6 November	Russia/The Republic of Belarus	Moscow, Russia
16 - 19 November	France	Paris, France
7 - 10 December	USA Pakistan	Cyberjaya Through corresspondence

Table: Meetings Conducted and Participated

3. **Filings for Frequency Assignments Submitted to ITU for Government and MEASAT Satellite Networks**
ITC processed and submitted 15 filings of MEASAT satellite networks to ITU in 2009.

Total filings processed and submitted for 2009:-

Submitted filings to ITU	Total 2009	2009 Target
MEASAT Satellite networks	15	12

Table: Filings Processed

4. **Registration Data at ITU for Maritime Mobile Service Identity (MMSI)**
The Maritime Mobile Access and Retrieval system is an online information system with a ship station database that is accessible to the maritime community. The system is primarily intended to support the Global Maritime Distress and Safety system (GMDSS). It is used to identify ship stations in distress and additionally provide pertinent vessel information.

MMSI is a nine-digit number assignments system that uniquely identifies a maritime mobile service. For ship stations, the MMSI comprises a three-digit Country of Registration identifier (Maritime Identification Digits or MID) followed by a 6 digit ship identity. The ITU has allocated one MID to each country and Malaysia's MID is 533.

ITC submitted 213 MMSI numbers belonging to Malaysian registered vessels for registration in 2009.

Registered MMSI to ITU	Total 2009	2009 Target
Total	320	250

Table: Registered MMSI to ITU

The data base can be accessed through a dedicated dial-up system and it is also accessible from the ITU website (www.itu.int).

5. **Border Technical Coordination**
Border Coordination ensures harmonised use of spectrum at border areas by efficiently coordinating the frequency spectrum among neighbouring countries. This is carried out in accordance with relevant national regulations and international conventions and regulations.
These meetings discuss frequency related matters, policy and regulatory updates as well as other pertinent areas that could strengthen regional cooperation and relationship among the three countries. In addition, the nations share learning gained during implementation of new technologies in their countries.

SKMM is a member of four technical border coordination committees:-
(i) Frequency Assignment Committee between Singapore, Malaysia and Brunei (FACSMAB);
(ii) Joint Technical Committee between Malaysia and Thailand (JTC);
(iii) Joint Committee on Communications between Malaysia and Indonesia (JCC); and
(iv) Trilateral Coordination Meeting among Indonesia, Malaysia and Singapore (Trilat).

These committees coordinate frequency coordination and registrations for stations along the designated border areas, resolve reported interference cases, carry out frequency planning for future services and harmonise existing band plans.

SKMM ensures that all Malaysia's coordinated frequencies at the above committee meetings are notified to ITU's Master International Frequency Register (MIFR). These frequencies will then be protected should there be interference from other users from neighbouring countries.

6. **Frequency Assignment Committee between Singapore, Malaysia and Brunei (FACSMAB)**
a. FACSMAB held its meeting on a monthly basis, and during the period from January to December 2009, FACSMAB held 12 meetings. These meetings among Singapore, Malaysia and Brunei are to discuss on frequency related matters, policy and regulatory update as well as other pertinent areas that could strengthen the regional cooperation and relationship among the three countries. In addition, these three countries share knowledge on the implementation of new technology in respective countries.

b. Total of 265 Malaysian frequencies was registered at FACSMAB from January till December 2009.

Summary of meetings held is shown below, including the Review Meeting.

Meeting	Venue	Date (2009)	Frequency Registrations		
			Malaysia	Singapore	Brunei
806	Brunei	19 Jan	1	5	54
807	Virtual Meeting (Malaysia)	19 Feb	2	2	8
808	Singapore	19 Mar	0	6	22
809	Virtual Meeting (Brunei)	23 Apr	126	0	15
810	Malaysia	28 May	41	0	11
811	Singapore	17 June	31	0	2
812	Virtual Meeting (Brunei)	23 July	5	4	9
813	Virtual Meeting (Malaysia)	20 Aug	4	0	14
814	Virtual Meeting (Singapore)	19 Sept	5	53	8
815	Brunei	22 Oct	5	0	25
816	Malaysia	24 Nov	26	1	13
817	Singapore	28 Dec	19	16	1
	Sub total		**265**	**85**	**182**
	Grand Total			**532**	

c. The following matters were addressed by FACSMAB in 2009:
- IMT in 450 – 470 MHz Band
- Intelligent Transport System in the 5.9 GHz Band
- L-Band Spectrum Usage at the Border Areas
- Electronic News Gathering (ENG)
- Unmanned Aerial Vehicle (UAV)
- Amateur Radio in the 5 MHz Band (Secondary)
- Maximising the Benefits of Digital Dividend
- LTE in 2.5/2.6 GHz Band
- Broadcasting in the 26 MHz

d. The following items have been identified for future FACSMAB work items for 2010:
- Wireless PAN at 60 GHz
- Communication above 26 GHz
- Software Defined Radio and Cognitive Radio Systems

e. FACSMAB is focused mostly on the agreed segmentation of band plans to be worked out among the neighbouring countries with a view to have a harmonisation at the common border areas. The initiative is essential to ensure efficient use of spectrum and to cater new technology as introduced in the WRC Agenda items such as listed in item 6(i)c.

f. FACSMAB members had been working towards harmonisation on the spectrum arrangement for IMT systems in the 450-470MHz band. Migration of the existing users in the band to the lower band needs to be worked out and planned to accommodate the biggest spectrum lot for IMT.

g. FACSMAB also deliberated on spectrum requirements for other services such as ENG, LTE and UAV and been following the development and discussions carried out at ITU Working Party level.

f. A new channeling plan in VHF 138/143 MHz between Brunei and Malaysia was agreed and endorsed by the Heads of the Regulatory Authorities at the 9th FACSMAB Review Meeting which was held in June 2009 in Singapore.

i. A FACSMAB website will be developed to allow members to disseminate and share information amongst FACSMAB members. This effort also will create a general public awareness of FACSMAB's roles and work activities.

7. **Joint Technical Committee (JTC) on Coordination and Assignment of Frequencies along Malaysia – Thailand Common Border Meeting**
a. JTC convenes twice yearly. The 17th JTC Meeting was successfully held from 22 - 24 December 2009, hosted by SKMM in Melaka, Malaysia.

b. JTC deliberated on policy and regulatory update, frequency related matters, interference issues as well as other significant areas that could strengthen the relationship and regional cooperation between the two countries. In addition, both countries share the knowledge on the implementation of the new emerging technology into their respective countries.

c. JTC had to defer issues pertaining to broadcasting specifically related to new band allocation for band I, II, III and V to be utilised for Digital Terrestrial TV (DTT) until Thai's National Broadcasting Committee (NBC) is formed.

d. JTC also escalated pending issues on the Cellular Service Area Coverage and International Roaming to the Joint Permanent Commitee on the Coordination and Assignment of Frequencies along the Common Border Areas (JPC) for decision at the ministery level.

e. A Special Task Force (STF) was formed under the purview of JTC to focus on specific issues which require more time and detailed study before it could be presented at the JTC Meeting.

f. The next JTC meeting (18th JTC) is scheduled to be held in Thailand in Q2 2010.

8. Joint Committee on Communications between Malaysia and Indonesia (JCC)

a. JCC convenes once a year. The 7th JCC Meeting was successfully held from 12 - 14 August 2009, hosted by Directorate General of Posts and Telecommunications (DG Postel) in Bandung, Indonesia.

b. JCC deliberated on policy and regulatory update, frequency related matters, interference issues as well as other significant areas that could strengthen the relationship and regional cooperation between the two countries. In addition, both countries share the knowledge on the implementation of the new emerging technology into their respective countries.

c. Among other issues that required immediate attention from both regulatory authorities is on the Interference Resolution and Sharing in Band 880-890 MHz between EGSM and CDMA2000 systems. Operators from both countries have agreed to perform network optimisation and measurement in resolving the interference from CDMA2000 in the East Coast Sumatra towards EGSM in the West Coast Peninsular by Q4 of 2009.

d. The next JCC meeting (8th JCC) will be held in Malaysia in Q3 of 2010.

9. Trilateral Coordination Meeting between Indonesia, Malaysia and Singapore (Trilat)

a. Trilat convenes twice yearly. The 6th Trilat Meeting was successfully held from 6 - 7 October 2009, hosted by SKMM in Kuching, Sarawak.

b. Trilat is the platform for the regulatory bodies of Indonesia, Malaysia and Singapore to discuss on frequency related matters as well as the implementation of new technologies which might not be discussed during bilateral meeting but has concerned to all three parties. The border areas covered by this committee is Johor-Singapore-Batam/Bintan/Karimun.

c. A Special Task Force (STF) was formed under the purview of Trilat to study the feasibility of frequency re-use in the VHF/UHF Broadcast band at South Johor, Singapore and Batam/Bintan/Karimun Island border areas.

d. Three STF meetings were conducted in 2009. It is expected to convene once more in Q2 2010 before the study could be concluded. The outcome of the STF Meeting will be reported to the 7th Trilat Meeting scheduled to be held in Singapore in Q2 2010.

10. Notifications of Frequency Assignments submitted to ITU for Malaysia's Terrestrial stations along border areas

ITC submitted 472 notifications for terrestrial frequency assignments to ITU for registration with Master International Frequency Register (MIFR) to obtain international recognition and protection, from January to December 2009.

SPECTRUM ENGINEERING AND INTERFERENCE RESOLUTION

1. International Events

The spectrum monitoring team has undertaken a task of ensuring zero interference during international events which was held throughout 2009. All of the events took place at the Sepang International Circuit (SIC). The first international event was the Formula 1 Grand Prix, held from 3 - 5 April 2009, followed by the Super GT Japan from 19 - 21 June 2009. The Motor Grand Prix event was held from 23 - 25 October 2009.

All spectrum applied or those to be utilised during all of the three events were scanned a week before via NASMOC remote monitoring station located at Empress Hotel, Sepang and supported by the Data Collection Mobile Unit (DCMU) parked at the Sepang International Circuit (SIC) during the event.

2. Measurements and monitoring made on Spectrum Bands

Using the National Spectrum Monitoring and Control (NASMOC) stations nationwide, a number of frequency bands were identified and monitored. These measurements were done for the purpose of assignments and planning. The monitoring activities were also exercised to monitor the level of usage by our licensees and also to monitor unused frequency channels. The bands that were selected were as follows:

Services	Frequency band
Broadcast (GE75, Band I, II, III, IV, V)	526.5 - 1 605.5 kHz
	47 - 68 MHz
	87.5 - 108 MHz
	174 - 230 MHz
	470 - 798 MHz
Aeronautical	3 025 - 18 030 kHz
	108 - 118 MHz
	118 - 137 MHz
Trunk radio	380 - 400 MHz
	806 - 821 MHz
	851 - 866 MHz
BWA	821 - 824 MHz
	866 - 869 MHz
	2 300 - 2 400 MHz
	2 504 - 2 688 MHz
Radio-location	1 215 - 1 300 MHz
Private network	138 - 139.4 MHz
	142.6 - 144 MHz
	443 - 444 MHz
	448 - 449 MHz
Amateur radio	144 - 148 MHz
Maritime	156 - 157.45 MHz

Table 1: List of monitored frequency bands

3. Radio Frequency Interference:

Throughout 2009, a total of 74 complaints were received from general public, licensees and other government agencies. These complaints encompass interference regarding aeronautical radio communications, amateur radio, cellular networks, broadband networks, satellite services and poor TV or FM radio coverage and reception. Out of the 74 complaints, 65 complaints had been resolved or closed. Meanwhile, nine complaints are still pending investigation and action from the respected parties. The nine complaints were carried over and addressed in 2010. Two out of the 74 cases highlighted and shared in this report in Figure 1.

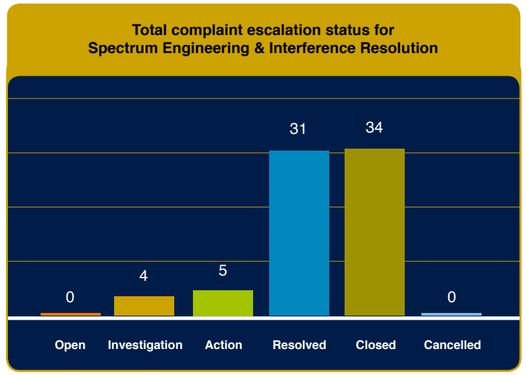


Figure 1: Complaints status for 2009

Interference cases:

a) Fixed Satellite Service

Media Digital Distribution (MDD), satellite service operator lodged a complaint on 10 November 2009 claiming that an external terrestrial signal was interfering with their satellite receivers operating within the 3400 to 4200 MHz band. The interference was detected by MDD's Master Control Room personnel when they could not lock to the satellite to get the programme fed through their steerable satellite receiver at Level 62, Empire Tower. The Spectrum Engineering and Interference Resolution (SEIR) team discovered a high amplitude carrier at 3358 MHz. The high amplitude carrier caused saturation to the Low Noise Block (LNB) of the satellite receiver to the extent that the entire C and extended C band satellite carriers received were distorted.

Further investigation proved that the interference carrier was produced by a Broadband Wireless Access (BWA) base station which was currently on trial, by a BWA operator. The BWA trial was allowed to operate in the 3300-3400 MHz band, which is adjacent to the Fixed Satellite Service (FSS) band. The BWA base station was located at Menara Olympia (2.58 km from MDD) and a fixed Customer Premises Equipment (CPE) in Maxisegar Building (5.27 km from MDD). Subsequent tests showed that, MDD can only operate normally when BWA transmission cease operation. Although the BWA's antenna was not facing directly to MDD, the emission from terrestrial was still higher compared to the satellite signal and consequently failed to lock to the satellite signal.

b) Cellular Jammer

Maxis experienced severe interference along Jalan Ampang on 21 October 2009 where five GSM base stations along Jalan Ampang was affected. During the scanning and investigation done by SEIR, a few broadband signals were found to be coming from Wisma MCA building at Jalan Ampang. Going into the building, signals were detected and they were originating from some jammer placed inside a conference room in a nearby building.

The interference had caused serious degradation to GSM cellular service affecting GSM 900 uplink and downlink frequencies that resulted with bad quality calls and increased drop call rate. The Chief Administrative Director responsible within the building was advised to cease operation of the jammer with immediate effect.

MOBILE NUMBERING PORTABILITY (MNP)

1. Porting Activities

1.1 Overall Porting Figures

The following is a report on key statistics based on the implementation of Mobile Number Portability (MNP) commencing from the nationwide launch up to 31 December 2009 (covering a period of about sixteen months). It includes:

The overall porting figures as at 31 December 2009 are as follows:

a) There have been 1,850,357 requests to port their numbers to a different operator; [these include multiple port request by recipient operator i.e. the same number may request for port more than one after the first request has been rejected by the donor];

b) Out of the total requests 1,286,682 have been ported successfully; and

c) A total of 536,862 port requests have been rejected for a number of reasons with the main reasons being the customer ID does not tally with the information contained in the donor's database, unpaid outstanding bills and the existence of supplementary lines which were not ported together with the principal line.

The Table 1 below shows overall porting figures as at 31 December 2009:

Table 1: Overall Porting Figures

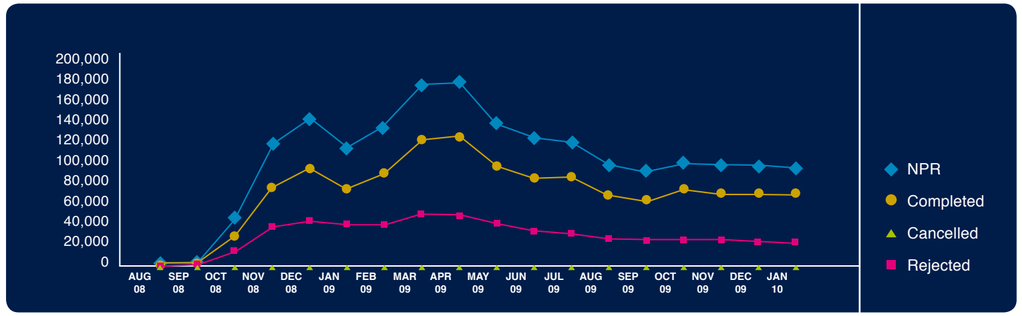
Port Request	Successful Port	Port Rejected
1,850,357	1,286,682	536,862

1.2 Monthly Porting Figures

The monthly porting activities commencing from Limited Live Trial on 29 August to 31 December 2009 can be seen in Table 2 below:

Date	NPR	Completed	Rejected
29 Aug 2008 - 30 Sep 2008	4,851	3,008	1,702
01 Oct 2008 - 31 Oct 2008	48,916	30,847	16,216
01 Nov 2008 - 30 Nov 2008	123,058	80,120	40,893
01 Dec 2008 - 31 Dec 2008	147,816	97,717	44,886
01 Jan 2009 - 31 Jan 2009	117,863	77,456	41,708
01 Feb 2009 - 28 Feb 2009	138,942	94,154	41,814
01 Mar 2009 - 31 Mar 2009	182,505	130,265	21,047
01 Apr 2009 - 30 Apr 2009	185,050	130,265	51,047
01 May 2009 - 31 May 2009	142,973	101,219	43,375
01 Jun 2009 - 30 Jun 2009	129,350	89,104	36,322
01 Jul 2009 - 31 Jul 2009	125,015	90,127	33,866
01 Aug 2009 - 31 Aug 2009	101,818	72,564	28,477
01 Sep 2009 - 30 Sep 2009	95,677	68,195	25,771
01 Oct 2009 - 31 Oct 2009	105,147	77,932	26,548
01 Nov 2009 - 30 Nov 2009	101,183	73,425	26,587
01 Dec 2009 - 31 Dec 2009	100,193	74,504	24,999
Total	1,850,357	1,286,682	536,862

Table 2: Porting Activities – monthly (29 Aug 2008 to 31 Dec 2009)



Graph 1: Pattern of port requests (NPR), successful port or completed port, port cancelled & port rejects (monthly tabulation)

1.3 Porting Rate

As of 31 December 2009 and out of the 1,850,357 applications received by the clearinghouse, 1,286,682 had been successful ported out (in 'Completed' column of Table 2) and this represents about 4.5% of total mobile subscribers in Malaysia (based on approximately 30 million mobile subscriptions for Q4 last year. (Source: SKMM)

Reports have shown that in countries that have introduced MNP, there are varying levels of porting rates. Typically, after the first year of introducing MNP, most countries have attained porting levels that range from 0.5 to 8% of their total mobile subscriber figure.

2. Duration Taken For Porting

The duration taken for porting can be divided into two categories namely the duration for Consumer Ports (individuals) and also Non-Consumer Ports (corporate clients). The two categories are distinguished as the complexity in porting across the numbers between the two categories differs quite a bit.

2.1 Consumer Ports

With Consumer Ports, the porting process will take less time as the total numbers involved (including those with supplementary lines) usually are limited and therefore the maximum porting duration allowed by SKMM based on the Public Inquiry held early on was five days for the first year and this was lessened to 2 days after October 14 2009.

The overall view of the time-frame taken by operators to process Consumer Ports throughout the duration of 29 August 2008 – 31 December 2009 are as follows:

	Date	Activated within 5 days		Activated > 5 days		Total	
Consumer Port (Individual)	From LLT to 14 Oct 2009	1,073,539	99.84%	1,704	0.16%	1,075,243	100%
	Date	**Activated within 2 days**		**Activated > 2 days**		**Total**	
	*15 Oct 2009 to 31 Dec 2009	185,012	99.70%	560	0.30%	185,572	100%

Table 3: Overall timeframe for Consumer Port as of 31 December 2010
Note: * As of 15 October 2009, the porting timeframe was two working days.

Based on Table 3 above, 99.84% of all port requests for Consumer Ports are completed within five days of the port request being made. Even when the porting timeframe was reduced to two days from 15 October 2009 onwards, 99.70% of the port requests managed to be activated within the time limit of this new timeframe.

It is also to be noted that 0.3% of the ports requests went beyond the 2-day limit allowed and these were mainly attributable to the initial technical issues on the operator's side especially during the early changeover stages.

2.2 Non-consumer Ports

With Non-Consumer Ports (corporate clients), the porting process takes longer as it will involve a large amount of telephone numbers and therefore the maximum porting duration allowed under the MNP Industry Business Rules was 10 days for the first year and this was reduced to 5 days beginning 15 October 2009.

The time-frame taken by operators to process Non-Consumer Ports throughout the duration of 29 August – 31 December 2009 can be seen from Table 4 below :

	Date	Activated within 10 days		Activated > 10 days		Total	
Non-Consumer Port (Corporate Clients)	From LLT to 14 Oct 2009	20,217	99.92%	16	0.08%	20,233	100%
	Date	**Activated within 5 days**		**Activated > 5 days**		**Total**	
	*15 Oct 2009 to 31 Dec 2009	5,633	99.98%	1	0.02%	5,634	100%

Table 4: Overall timeframe for Non-Consumer Port as of 31 December 2009
Note: * As of 15 October 2009, the porting timeframe was five working days.

Based on Table 4, 99.92% of all port requests for Non-Consumers were completed within 10 days of the port request being made. Subsequently from 15 October 2009 onwards when the timeframe allowed for porting was reduced to 5 days, 99.98% of the port requests managed to be ported within this 5-day limit.

It is also to be noted that 0.08% and subsequently 0.02% of the ports requests went beyond the 10-day and 5-day limit allowed, respectively. Based on the experience gained during one year after of MNP implementation, it is to be expected that the performance of the operators should improve further.

Out of the total "Completed" (i.e. successful) port processed since LLT (1,286,682 applications), 97.99% came from individual applications (Consumer) whilst the remaining 2.01% came from Non-Consumer port applications.

Consumer	1,260,815	97.99%
Non-Consumer	25,867	2.01%
	1,286,682	

3. Cost Of Porting To Consumers

SKMM did not dictate to the industry the amount of porting fees that may be charged to customers who wish to port. However, SKMM did decide that any porting fee charged should not be too exorbitant and should be capped at RM25.00.

To date, none of the operators are imposing any porting fees to their port-in customers.

4. Tariff Transparency

Solution For Tariff Transparency

Tariff Transparency refers to the ability of a user to know the price of a call prior to making it.

During the pre-MNP era, the user would be able to ascertain which operator is being called by looking at the prefix at the dialed number (e.g. 012, 016, 018 etc.). However, MNP takes away the users' ability to differentiate between calls to specific operator via the prefix of the called number.

To rectify the problem associated with tariff transparency, SKMM requested:

a. All mobile operators to implement SMS Information Service which will enable the users to obtain information on whether the call to be made is On-Net or Off-Net; and
b. SKMM set up its own Online Information Service to enable user and the general public to enquire if the mobile numbers to be called are On-Net or Off-Net. SKMM's online portal called 'Mobile Number Check' and is available via mnpcheck.gov.my

To date, all the mobile operators i.e. Celcom, Digi, Maxis and U Mobile have successfully implemented and launched their own SMS Information Service.

5. Time For Porting

Porting Process Timer

As set out in the MNP PI report, the porting process time is five working days for the first year of the launch. This was to allow the operators to familiarise themselves with the processes and reduce any errors that are inevitable when a new service is introduced on a national scale.

After one year of the launch, 15 October 2009, the porting process timer was reduced to two working days for consumer port. Several meetings and discussions were held with the industry to identify current workflows of the MNP system that could be impacted by the exercise. Various timers involved in the porting process were reviewed as duration of messages between the operators and the clearinghouse has to be changed. Processes and timers were then modified to cater for this shorter processing time and the changes took effect on 15 October 2009 without a glitch.

NUMBERING MANAGEMENT

In line with the 10 policy objectives set out in CMA 1998, efficient management of numbering resources plays an important role in order to facilitate network roll-out and service offerings to the consumers.

Cellular Mobile Number Expansion

In order to have enough capacity of cellular mobile numbers kept as reserve to meet future requirements, MCMC has decided to facilitate the industry to explore on numbering expansion for future usage.

SKMM has formed industry consultative group called Consultative Group on Numbering (CGON) and working group (WG) consisting representatives from the licensees, content providers, vendors and other related parties to study on implementation of cellular mobile number expansion namely, 3+8 numbering scheme. This Committee is responsible on the technical, consumer and awareness aspects to ensure smooth migration process and to avoid interruption of service.

Recovery of prefix '011'

The recovery of prefix '011' from TM is a primary measure in order to start the industry to use the 3+8 numbering scheme. Moreover with the development of future application services such as MVNO, the country required further planning for numbering management.

Prefixes for Public Cellular Service Providers

In 2009, SKMM made a decision that the new public cellular players including the MVNO players will share the same numbering format as the existing cellular service providers within the '010' and '018' prefix.

The Table below provides the list of licensees who have been given public cellular mobile numbers assignments as at 2009:

List of Public cellular Service Providers and assigned numbers

Service Providers	Prefix	Numbering Range	Total Subscribers Numbers
Celcom Axiata Berhad	013	200 0000 – 999 9999	8,000,000
	014	500 0000 – 599 9999	1,000,000
		800 0000 – 899 9999	1,000,000
	019	200 0000 – 999 9999	8,000,000
DiGi Telecommunications	010	200 0000 – 299 9999	1,000,000
		360 0000 – 399 9999	400,000
		460 0000 – 469 9999	100,000
		560 0000 – 569 9999	100,000
		660 0000 – 669 9999	100,000
		760 0000 – 769 9999	100,000
		820 0000 – 829 9999	100,000
		880 0000 – 889 9999	100,000
		900 0000 – 989 9999	900,000
	014	300 0000 – 399 9999	1,000,000
		600 0000 – 699 9999	1,000,000
		900 0000 – 999 9999	1,000,000
	016	200 0000 – 299 9999	8,000,000
Maxis Mobile Services Sdn Bhd	012	200 0000 – 999 9999	8,000,000
	014	200 0000 – 299 9999	1,000,000
		700 0000 – 799 9999	1,000,000
	017	200 0000 – 999 9999	8,000,000
Tune Talk Sdn Bhd	010	500 0000 - 549 9999	500,000
	014	400 0000 – 400 9999	10,000
U Mobile Sdn Bhd	018	200 0000 – 2999 999	1,000,000
		350 0000 – 399 9999	500,000
		400 0000 – 409 9999	100,000
		460 0000 – 474 9999	150,000
		570 0000 – 579 9999	100,000
		660 0000 – 669 9999	100,000
		760 0000 – 769 9999	100,000
		770 0000 – 779 9999	100,000
		780 0000 – 794 9999	150,000
		870 0000 – 874 9999	50,000
		900 0000 – 989 9999	900,000
Xox Com Sdn Bhd	010	300 0000 - 349 9999	500,000
YTL Berhad	018	300 0000 - 309 9999	100,000

To ensure efficient use of subscriber numbers, SKMM has decided that any new assignment of the numbers under new prefix is not exclusive to any public cellular service provider.

Prefix 0156

SKMM has opened new numbering prefixes for Digital Public Mobile Radio (DPMR) services using 4 + 7 numbering scheme in 2009 in order to facilitate introduction of new services as shown below:

Prefix	Subscriber Number	Service Provider
0156	200 0000 to 200 9999	Segi Maju Consortium Sdn Bhd

Digital Public Mobile Radio (DPMR) service providers in 2009 is shown in the following table:

List of the Public Mobile Radio (DPMR) service providers as at 2009

Item	Service Providers
1.	Electcoms Wireless Sdn Bhd
2.	Majlis Keselamatan Negara
3.	Segi Maju Consortium

Other Numbering Assignments

The Table below described all the assignments for numbering that has been issued in 2009.

Other numbering assignments issued in 2009

Numbering Type	No. of assignments	Licensees	Total
International Signalling Point Code	5	TM	6
	1	YTL	
National Signalling Point code	17	Tune Talk	22
	5	YTL	
International Mobile Subscriber Identity	1	Segi Maju 1 Consortium	
Independent Short Code	7	Tune Talk	9
	2	Celcom	
Public Switch Telephone Network (PSTN)	30	TM	82
	48	P1	
	4	Maxis	

Events Participated/Organised

Malaysia IPv6 Action Plan

In ensuring for achievable target, the Government has charted out the following action plan based on the inputs from related Government agencies and industry as shown below:

Action Plan for IPv6 Ready

Action	Agenciess	'07	'08	'09	'10	'11	'12
ISP Compliance Audit	SKMM	Ph. 1 (Done)	Ph. 2 (Done)		Ph. 3 (Done)		
Govt.agencies migration	MAMPU		KPKK & all govt. dept. MAMPU (Done)				
R&D on IPv6 application	MOSTI	R & D					
Awareness	MICC & Stakeholder	Continuous awareness programme and roadshow					
Malaysia IPv6 Ready	MICC & Stakeholder	Malaysia IPv6 ready 2012					

ENUM Closed test Bed

In 24 November 2009 to 25 February 2010, SKMM, in collaboration with .my DOMAIN REGISTRY conducted a trial on 'ENUM Closed Test Bed' for ENUM implementation in Malaysia.

This trial period involved ENUM to Voice over Internet Protocol (VoIP) and ENUM to email. Testing numbers provided for the trial were 0154 300 0000 to 0154 300 9999 (10 000 numbers).

The purpose of conducting the ENUM Trial was to test the architectural, technical, operational, and user aspects related to the provision of ENUM capabilities for the Malaysia under Country Code 60.

The other objective of the trial was to initiate ENUM introduction in Malaysia.

Seminar and Workshop

SKMM, in collaboration with .my DOMAIN REGISTRY (formerly known as MyNIC) jointly organised a three day seminar on 'ENUM (Electronic Numbering) Implementation in Malaysia' from 8 to 20 May 2009 in Kuala Lumpur.

This ENUM Seminar is a platform for sharing of experience and knowledge pertaining to the implementation of ENUM, and establish a bridge between telephony and the Internet. By using ENUM, multiple addresses can be now be attached to a single individual that promotes for "One person, One number, Multi services" application.

Target groups for this ENUM seminar comprised of telecommunication service providers, internet service providers, IP telephone service providers, network device vendors, network solution providers, relevant government agencies and professionals from universities/academia.

This seminar covered all aspects of innovation, with emphasis on vision, implementation strategy and business. Experts from organizations such as ENUM.at (Austria), international ENUM Vendors, regulators and academician were present and shared their experiences and knowledge.

ISP Compliance Audit

Major ISPs in the country has equipped their infrastructure with dual stack and have also undergone compliance audit for IPv6 enabled. The compliance audit or testing lead by the MCMC were carried out as shown below:

Compliance Audit/ Test for ISP

Stage	Compliance Test	Status
Phase 1	i. Basic Connectivity ii. IPv6 Application functionally iii. Transition Mechanism	March 2007 - Completed
Phase 2	Global Inter-ISP connectivity	Dec 2009 - Completed
Phase 3	• Registration of IPv4 domains to IPv6 domains by web hosting company	Q4 2010 - 10% of 100K IPv4 domains
	• Basic internet application to the end users	Q2 2011

IPv6 Compliance Audit – Phase 1

IPv6 Compliance Audit – Phase 1 was carried out in March 2007. The phase 1 audit exercise was performed by the National Advanced IPv6 (NAV6) Centre which was appointed as an auditor by MCMC to analyze the readiness of ISPs in Malaysia.

IPv6 Compliance Audit – Phase 2

For the second phase audit, Numbering Planning Department was mandated to lead the ISPs in ensuring the development of IPv6 in the country. This was different from the Phase 1 Audit where the ISP were required to carry out the testing by self declaration which was agreed by IPv6 Working Group members.

The exercise was carried out on 7 December and completed on 21 December 2009, it was participated by 17 ISPs.

The objective of IPv6 the second phase Compliance Audit was to ensure the IPv6 global and local ISP inter connectivity.

No	Internet Service Provider (ISP)	Test Method	
		IPv6 Forum Isp Logo	International Peering Test
1	Jaring	Yes	Yes
2	NTT MSC	Yes	Yes
3	Maxis	Yes	Yes
4	TM	Yes	Yes
5	Time Dotcom	No	Yes
6	DiGi	Yes	Yes
7	Global Transit Communication	Yes	Yes
8	GITN	Yes	Yes
9	V Telecoms	No	No
10	Packet One Network	Yes	Yes
11	VADS	Yes	Yes
12	Celcom	Yes	Yes
13	U Mobile	No	No
14	Bizsurf MSC	No	No
15	OCE	Yes	Yes
16	Extreme BB	No	Yes
17	YTL Communications	No	No

IPv6 Compliance Audit – Phase 3

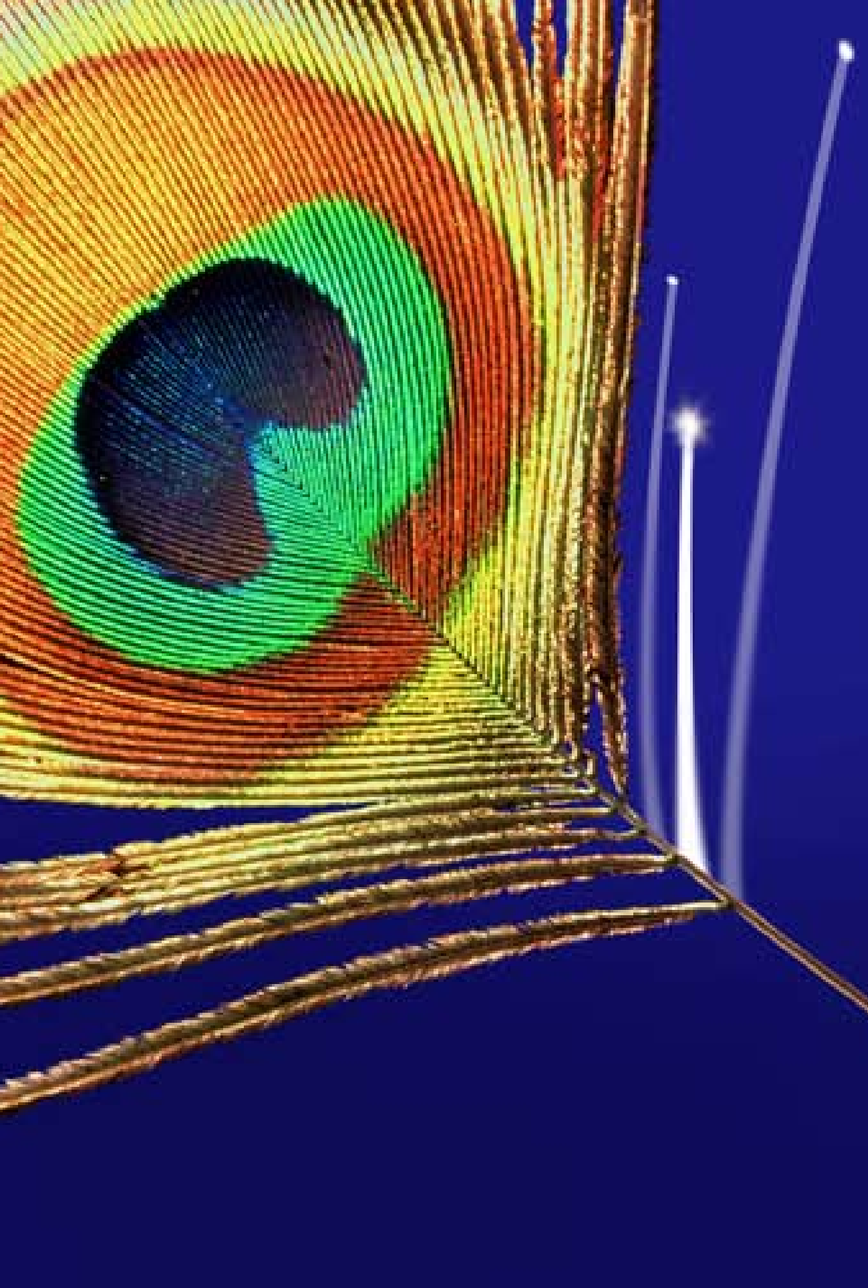
Phase 3 exercise will involve IPv6 users. It will consist:

a) Registration of V6 domain name by web hosting company for 2010.
b) Basic internet application to end users for 2011.

IPV6 Challenges

In general, there are many challenges faced worldwide due to the infancy stage of IPv6 implementation. Issues and challenges that are facing Malaysia are as follows:

a) Unavailability or lacking of end- users devices that failed to trigger consumer at large.
b) Weak market demand for IPv6 service applications.
c) High broadband traffic access on content that is still running on IPv4.
d) Cost of migration to IPv6 will slow down the adoption to IPv6.



The Public-Private Partnership agreement between the Government and Telekom Malaysia (TM), which was signed on 16 September 2008, aimed to take Malaysia's competitiveness to a higher level based on the fact that the nation's broadband connectivity needs to be improved with an Internet-protocol-based high speed broadband network. TSND focuses on all aspects of technology development for the Commission in carrying out its regulatory and development functions.

07

Technology, Standards and Network

BACKGROUND

It was an exciting year for the division, firstly with the formation of the new division comprising- the former Infrastructure Development Division (IDD) and the Technology and Standards Department, which was under the then MyICMS, Technology and Standards Division (MTSD).

The new division, now known as Technology Standards and Network Division (TSND), was created in February 2009.

While the TSND focuses on all aspects of technology developments including broadcasting and IPTV, 3G and beyond, multimedia terminal, short range & low powered devices, the division is also responsible for the monitoring of network performance under the mandatory standards for Public Switched Telephone Network (PSTN), Public Cellular Services, Dial-up Access Services and recently for broadband access services. Coupled with day-to-day business pertaining to infrastructure sharing, certification, certifying agency monitoring, communications tower Electro-magnetic Compatibility (EMC) and Electro-magnetic Field (EMF) radiation measurement, the division was also responsible for conducting Radio Amateur Examination, which is a public examination held twice a year since 2003.

Since the establishment of the Malaysian Neutral Internet Exchange or MyIX in 2006, the division is also tasked to manage the proof of concept operations of the MyIX prior to the formation of the MyIX consortium as a society running a non-profit organisation.

In the year of reporting, deliverables under the Organisation Performance Planning (OPP) covered three of the five strategic thrust (ST) areas, namely:

a) ST1: TO ENSURE EFFECTIVE DEVELOPMENT AND ROLL-OUT OF INFRASTRUCTURE, SERVICES, GROWTH AND BRIDGING DIGITAL DIVIDE: Expansion of MyIX
b) ST3: TO ENHANCE REGULATORY COMPLIANCE: Strengthen monitoring activities, Development and revision of standards, and Enhancing self-regulation
c) ST5: TO ENSURE CONTINUOUS ENHANCEMENT OF POLICIES, REGULATIONS, GUIDELINES, PROCEDURES AND REENGINEERING OF PROCESSES FOR SERVICE DELIVERY IMPROVEMENTS: Review of existing policies and procedures to facilitate the development of the industry

In carrying out the tasks above, TSND has embarked on the following activities in relation to the respective deliverables:

- ST1: MyIX Expansion plan was made available in determining the various interconnection points in order to peer with larger domestic service providers by phased expansion within Peninsular Malaysia. MyIX infrastructure expansion also included the improved backbone connectivity of up to 10 Gigabit per second (Gbps) which was originally built on 1 Gbps in order to meet the increase in domestic internet traffic demands, a project which was completed in August 2009.
- ST3 a) Implementing and enforcing the gazetted installation of network facilities (INF) regulations, in which the target was to ensure the Issuance of Network Facility Installation Permits (NFIP) to track and ensure minimal duplication and efficient use of infrastructure which was carried forward in 2010.
- ST3 b) Activities related to monitoring and coordinating the execution of the Radio Frequency Measurement Tests conducted in collaboration with the Regional Offices and appointed consultants against the mandatory standards for EMF emission was carried out which resulted in increased public confidence on RF radiation with improved monitoring methodology and data management as well as active engagement via awareness and sharing of information and data with the public and interested parties.
- ST3 c) In ensuring the availability of standards for the much needed quality of service of wireless broadband, the division was able to provide a draft towards end of the year followed by ensuring compliance with the provision of Mandatory of Standards for quality of service in which case the reports were provided separately in the first and second halves of the year.
- ST3 d) There were several programmes and workshops held during the year in increasing public awareness of the Industry Forums and providing bi-annual reporting on the assessment performance of the industry forum.
- ST5 a) In supporting this strategic thrust, the division was able to complete a new draft for Mandatory Standards for assessment of EMF Emission last December 2009 to conduct the Mandatory Standards process.
- ST5 b) The division was also successful in updating guidelines on towers and rooftop structures to include uniformed and community friendly towers and rooftop structures into the draft for determination on Low Impact Network Facilities.

Throughout the year, the division also actively collaborated with Standards Malaysia to develop Malaysian Standards (MS) under the Malaysian Standards Act (Act 549). SKMM, through its division, has been actively participating and is a member of the following groups namely Industry Standards Committee (ISC) on ElectroTechnical (ISC E-1 and ISC E-2), the ISC on Information Technology, Communications and Multimedia (ISC-G), and the National Committee on International Electrotechnical Commission (IEC).

TSND was also successful in the development of the National Network Database with the implementation of the Magic Map during the year where large amounts of data from various disparate databases and systems were gathered and migrated into a single information repository to be viewed and presented in detail on popular applications such as Google Earth, Google Maps, Bing Maps, Microsoft Virtual Earth, etc.

For the monitoring of Certifying Agencies achievements, the issuance of certificates for 2009 from the three appointed agencies, namely SIRIM QAS International Sdn Bhd, Akademi Laut Malaysia and Multimedia College has increased significantly.

There were also other activities not mentioned above which were carried out by the division such as addressing issues on infrastructure, RF Radiation and Health and World Health Organisation, World Trade Organisation, Free Trade Agreements and Mutual Recognition Arrangements as well as being a part of the Committee in assisting MIDA to recommend tax exemptions to industry players involved in the Communications and Multimedia sector. Other supporting activities worth mentioning include the division's involvement in the development of technology and standards proposed or recommended in international standards bodies such as the International Telecommunications Union (ITU), the Asia Pacific Telecommunity Standardisation Program (ASTAP) and the European Telecommunications Standardization Institute (ETSI).

HSBB IMPLEMENTATION

Background

The Public-Private Partnership agreement between the Government and Telekom Malaysia (TM), which was signed on 16 September 2008, aimed to take Malaysia's competitiveness to a higher level based on the fact that the nation's broadband connectivity needs to be improved with an Internet-protocol-based high speed broadband network. A study by the Economic Planning Unit (EPU) estimated that 50% broadband penetration will contribute a minimum of 1% of Malaysia's GDP. This estimate is similar to the projections for the United Kingdom and New Zealand.

Scope

It was projected that the HSBB project would take ten years and cost RM11.3 billion to implement. The Government will invest RM2.4 billion and TM will invest the remaining RM8.9 billion. The scope of the project would include end-to-end deployment of high-speed broadband infrastructure that would require installation of new facilities and improvement to existing facilities. In general, the project entails deployment of broadband infrastructure as follows:

a. Access infrastructure
b. Core infrastructure
c. International connectivity

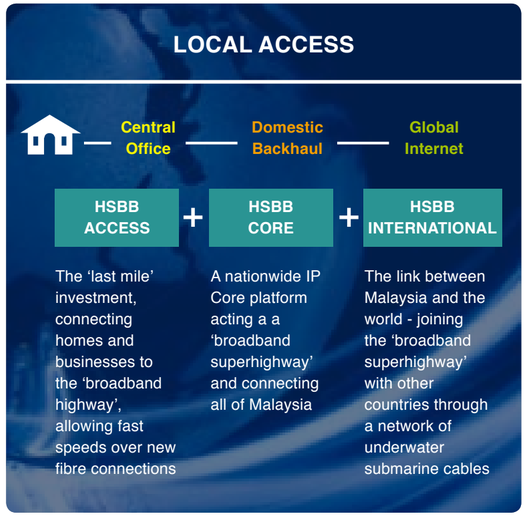


Diagram 1: HSBB Elements (Source: TM)

It is expected that TM will deploy high speed broadband access to about 1.33 million premises in the areas identified by 2012.

While the access infrastructure will only see deployment of high speed broadband infrastructure capable of minimum speed of at least 10Mbps, the deployment of new infrastructure and upgrade of existing infrastructure in the backbone (core infrastructure) and international connectivity will be able to improve general connectivity and bandwidth for the nation's broadband infrastructure. The HSBB Transmission Service, designed specifically for wholesale access, was launched on 30 April 2009.

YB Dato' Seri Utama Dr Rais Yatim, Minister of Information Communication and Culture officiated the commencement of works for HSBB access infrastructure at the Taman Tun Dr. Ismail Exchange on 29 June 2009. The exchange is one of the four exchanges identified (the others being Bangsar, Subang Jaya and Shah Alam) to be rolled out with HSBB services by end of 2009. The first home passed was achieved on 31 July 2009.

HSBB infrastructure deployment and claims as at 31 December 2009

As at 31 December 2009, TM had invested approximately RM1.891 billion for its HSBB infrastructure deployment. This includes its investment for 2008 amounting to RM 516 million. The breakdown of the investment are as follows:

Item	Category	RM ('000 million)
1	Access	314
2	Core	1,283
3	International	294
	Total	**1,891**

As can be seen from the above, about 67% of the investments are in the core network where TM installed or upgraded new backbone capacity. This includes Metro-E, Broadband Remote Access Servers (BRAS), Transmission, Control and support system. About 30% of the investments were made to improve on international connectivity where TM built the Asia-America Gateway cable system with its consortium members. The remaining 5% was invested in various civil works, fibre optic installation and mini rollout for access projects in various areas in Klang Valley. In total, TM had installed 8,093 fibre kilometer (fkm), which included 6,153 fkm for access network and 1,940fkm for domestic core network.

The Asia-America Gateway (AAG) cable system, which has a designed capacity of up to 2 Terabits per second (Tbps), was fully operational on 10 November 2009. With the AAG system, TM was able to 'complement existing cable systems such as the Asia-Pacific Cable Network 2 (APCN 2) and Japan-US Cable Network currently connecting to North America via North Asia1', which will be part of the HSBB network providing high-speed bandwidth. Domestically, the HSBB network also upgrades the network capacity between Peninsular Malaysia and Sabah and Sarawak. The upgraded network will be able to handle bandwidth of up to 70Gbps, in addition to the existing 5Gbps capacity currently available.

In accordance to the PPP Agreement, the Government had, up until 31 December 2009, paid a total of RM990 million (including 2008 payments). The payments were made after the Government had verified the quarterly claims submitted by TM.

Premises passed

TM's HSBB access networks are designed to accommodate four access technologies. Depending on the type of building, users can access HSSB services via Fibre-to-the-Home (FTTH), Ethernet-to-the-Home (ETTH), VDSL2 and ADSL2+. This would allow subscribers to enjoy high bandwidths, with a minimum of 10Mbps.

As at 31 December 2009, TM had successfully passed 151,780 premises covering 41 exchanges in Kuala Lumpur, Selangor Barat, Selangor Timur and MSC area, with 37% of the premises passed now using FTTH technology and the remaining 63% VDSL2/ADSL2+ technology.

In addition to the above, TM also undertook to complete the upgrade of four (4) exchanges, i.e. Taman Tun Dr. Ismail, Shah Alam, Subang Jaya and Bangsar to be HSBB-ready. With the upgrade, TM selected 123 of its staff as trial subscribers for its HSBB service in around these exchanges.

The SKMM Chairman, Y.Bhg. Tan Sri Khalid Ramli was invited to an HSBB Site Testing Visit at the Taman Tun Dr. Ismail Exchange on 31 December 2009 to gain better understanding of the implementation of HSBB in the access network.

[1] AAG Goes Live – A New Traffic Route Direct to USA. http://www.tm.com.my/about-tm/media-centre/press-release/Pages/AAGGOESLIVE%E2%80%93ANEWTRAFFICROUTEDIRECTTOUSA.aspx. Accessed on February 22, 2010.

THE MAGICMAP FAQ

What is MagicMap?
MagicMap is a tool that displays information on communications and multimedia infrastructure in the country. MagicMap is an easy-to-use information retrieval system that gathers information from various databases across SKMM, including fixed, wireless, satellite, broadcast and postal and courier.

Why MagicMap?
MagicMap was developed to utilise the available information on a different platform used for planning, monitoring, accuracy and further, easy reference for strategic decision-making. It is designed to meet the literally 'helicopter view' requirement whereby decision-makers can understand the situation on the ground at an instant. Previously, the information was available in disparate databases, in technical language that was difficult to digest.

Additionally, we also want accuracy in the information provided by service providers and stakeholders. For example, when service providers submit application for Apparatus Assignment (AA), we would be able to see whether the information submitted is accurate in MagicMap upon data update. Previously, we were not be able to ascertain whether the information provided is accurate.

What application is required?
Depending on the level of access, users can use normal browser with internet access and Google Earth.

How do I access MagicMap?
Access is by registration at mapserve.skmm.gov.my. Upon approval, users can directly access the MagicMap via the internet.

What information can I get from MagicMap?
The information on MagicMap is divided into two categories, namely sensitive and non-sensitive information. Non-sensitive information is information available to the general public using Google Map, while sensitive information such as location site, owner etc, is available via Google Earth and will not be made available to the general public.

How detailed is the information in MagicMap?
The MagicMap captures coverage, location, routes, capacity and other information related to communications infrastructure such as fibre optic, microwave stations, earth stations, switch stations, free standing towers, roof-top structures and Post Office information. Additionally, MagicMap also provides information on Parliamentary and State seats, including administrative areas, as well as population density in specific area.

How current is the information?
At the moment, the required information is provided and updated by respective departments such as Resource Assignment and Management Division (RAMD), Postal Department (PD), Universal Service Provision Division (USP), Statistical and Knowledge Resource Department (SKRD) etc and also from service providers themselves. This information is updated at the most, on quarterly basis. In the future, the information will be updated as and when they are available. Information available in Spectrum Management System (SpMs) is extracted and updated onto MagicMap on a monthly basis.

What is the structure of MagicMap?
All information gathered will be based on the Geographical Information (GIS) format. Data is then converted or imported into MapInfo format and is currently available in the National Network Database (NNDB) system.

How long was MagicMap developed?
The concept of MagicMap was mooted back in 2008. By early 2009, the concept was further refined with the use of Google Map and Google Earth, taking advantage of the freeware to test the reliability, security and scalability of the database. Active development of the system started in March 2009 by collating all the databases available in SKMM and updating of the relevant database.

MagicMap was migrated from its test bed for internal online test in June 2009. Mobile version using Blackberry for remote access was tested in July 2009. The Beta version for comprehensive testing was released in September 2009. In all, it took about six (6) months from application and system development to Beta testing. On 14 September 2009, MagicMap was presented to the Cabinet Committee on Broadband.

Web Interface – External Access (Public)

Web Interface – Internal Access

Parliament coordination

TSND also undertook its role to coordinate Parliament questions and answers for SKMM, and assisted the Ministry in the relevant Parliamentary sessions such as the Budget Debate. In its role, the Division liaised with the Ministry, SKMM internal divisions as well as licensees to provide answers and relevant feedback to the questions submitted by the Members of Parliament (for both Dewan Rakyat and Dewan Negara). For 2009, SKMM prepared answers for more than 180 oral and written questions from both Dewan Rakyat and Dewan Negara.

Investment tax allowance for last mile broadband providers

In 2009, the Division was tasked to process applications for the certification of eligible service providers to enjoy the incentives announced under 2008 Budget. The 2008 Budget provided incentives for broadband service providers in the form of 100% investment allowance on capital expenditure incurred by the last mile network facilities providers for broadband infrastructure to provide broadband services. This incentive is applicable for investments made and equipments purchased from 8 September 2007 to 31 December 2010.

In 2009, SKMM approved four applications as follows:
1. Optical Communication Engineering Sdn Bhd (151535-H)
2. U-mobile Sdn Bhd (223969-U)
3. Telekom Malaysia Berhad (128740-P)
4. Packet One Networks (Malaysia) Sdn Bhd (571389-H)

Service delivery improvement in the public sector

The One Stop Centre (OSC) launched by the YAB Prime Minister on 13 April 2007 was aimed at streamlining and expediting the development approvals process as part of PEMANDU's initiatives in improving service delivery in the public sector. In line with this, SKMM was appointed as one of the Technical Agencies responsible for providing feedback to the OSC in approving development proposals at the PBT on 2 September 2008. SKMM took this role and prepared a checklist to be used by all development proposals on matters related to the development of communications infrastructure and facilities within development areas/projects.

The checklist template document was signed off by all Department Heads of the Technical Agencies on 23 April 2009, with implementation targeted for 1 July 2009.

In line with this, SKMM proceeded to nominate its Regional Office officers to be members of the respective OSCs in the regions. This role was supplemented with the formation of a Task Force in May 2009 in every region for service providers to resolve any infrastructure issues related to the OSC requirements.

As an awareness initiative to the stakeholders, TSND, in collaboration with the Regional Office, KPKT and MTSFB, held seminars at state level to explain further SKMM's roles and requirements as a Technical Agency in imposing conditions to any development. The seminar also aimed to create awareness on inter-agency working arrangements with SKMM and the coming into effect of the Guidelines on The Provision of Basic Civil Works for Communications Infrastructure in New Development Area as well as Technical Standards and Infrastructure Requirements (TSIR) document. Participants of the seminars comprise industry players, government agencies, local councils, engineering consultants and property developers. In 2009, SKMM organised the seminars as follows:

No.	Date	Location	Region
1.	21 April 2009	Hotel Grand Continental, Kuala Terengganu	Eastern
2.	25 May 2009	Persada Johor International Convention Centre, Johor Bahru	Southern
3.	22 June 2009	Traders Hotel, Penang	Northern
4.	1 December 2009	Bayview Hotel, Melaka	Southern

08

Malaysians have clearly shifted to the new media. A study in 2007 revealed that 70% of Malaysian online users read blogs, 35% were bloggers and 80% watched video clips online. The statistic implies that it is not impossible that the new media could replace the conventional media one day. It is crucial for the public to be aware of both positive and negative impact of the new media, so that information is handled responsibly.

Monitoring and Enforcement

CONTENT REGULATION

SKMM, in supporting the Government's national policy objectives as set out in the Communications and Multimedia Act 1998 (CMA), it is imperative that online contents convey the rich heritage of Malaysian culture, identity and values. In this respect, SKMM oversees the regulatory framework for the converging industries of telecommunications, broadcasting and on-line activities in ensuring that the services and content provided are suitable, of commendable quality and is considerate of the needs of all segments of Malaysian community by making the recommendation for any necessary changes in policy and codes.

SKMM realises that in order to achieve its objective in content regulation, the general public must get involved. As such, SKMM operates to generate and enhance public awareness and to provide education and information on content policies, codes and standards. With this fundamental strategy, SKMM also assists the Content Forum in the implementation of its numerous activities in promoting self-regulation amongst the industry and public.

SKMM acknowledges the importance of public complaints on broadcasting content including advertisements, online content, and mobile content. It will respond by doing further monitoring, evaluating, and taking the necessary action on the matter, including providing reports on the public concern about standards and effectiveness of content policies, codes and standards as well as enforcement action.

SKMM also embraces the responsibility to monitor compliance with content standards and codes by Content Applications Service Providers (CASP), relevant Applications Service Providers (ASP) including traditional broadcast services and newer services such as online publishing and information services.

Together in implementing and ensuring its function to regulate the networked content industry, SKMM collaborate with various Ministries and government agencies including the Ministry of Information, Communication and Culture (KPKK), Ministry of Home Affairs (MoHA), Ministry of Health (MoH), the Censorship Board, the Content Forum, JAKIM (Department of Islamic Development Malaysia) and FINAS (National Film Development Corporation Malaysia).

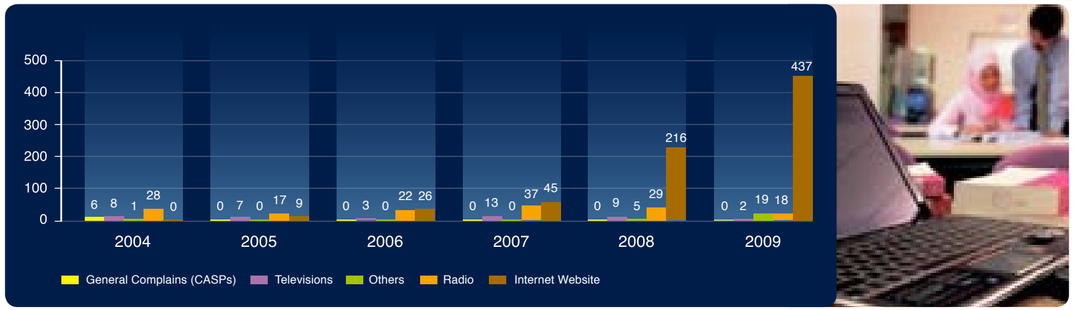
SKMM specifically provides advice on any matters concerning Section 211 and 233 under the CMA in relation to the provisioning of prohibited content on the networked environment.

Content Regulation: Complaints Received

SKMM received a total number of 476 complaints in 2009. This is an exponential increase of complaints compared to 2008 (217 complaints).

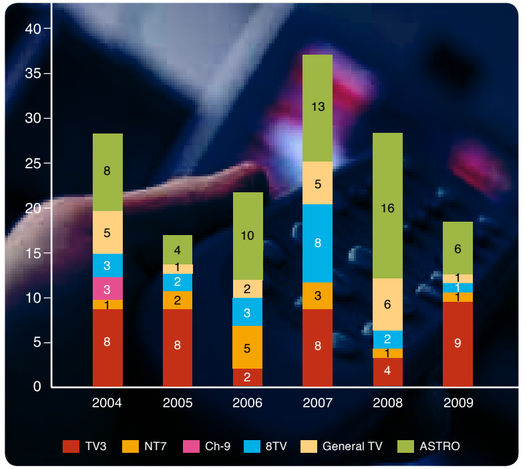
SKMM has observed that there is a change in the types of complaints lodged in which the complaints were shifting towards the internet and online-related complaints rather than the conventional media in previous years.

Trend on Complaints on Content 2004 - 2009



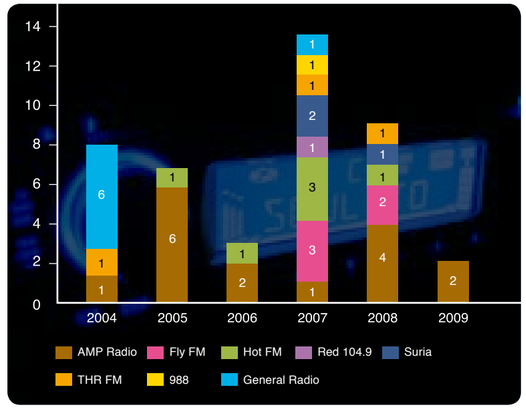
Based on the graph, 2009 shows a visible difference in the number of complaints for Internet content which is 437, compared to the previous year which recorded 216 complaints, and 45 complaints in 2007. This indicates the growing concern among the public regarding internet content. For television content, the graph shows a decline from the previous year which is from 18 compared to 29 complaints in 2009. The graph for Radio content shows a decline from nine complaints in 2008 to two complaints in 2009. The complaints for General Complaints (CASPs) remain static as in previous years. While complaints for others shows an increase from five complaints in 2008 to 19 complaints in 2009.

Television



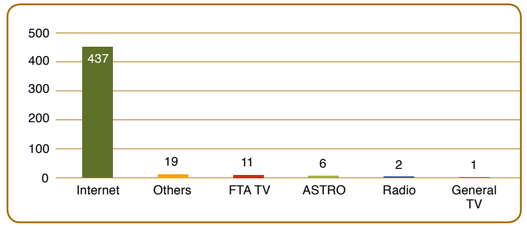
The year 2009 shows a decline in the number of complaints for ASTRO which is numbered at six complaints compared to the previous year - 16 complaints. The number of complaints for General TV, 8TV and NTV7 are identical with one complaint respectively, while the number of complaints for TV3 increases to nine in 2009 compared to four complaints in 2008.

Radio



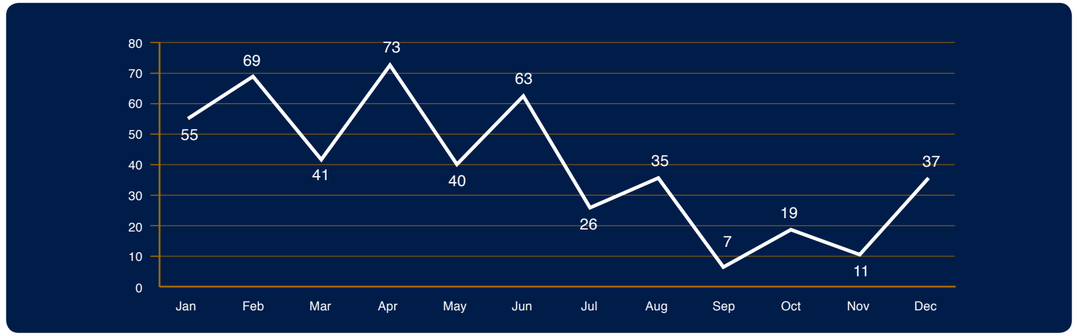
Based on the graph, the year 2009 shows a large decrease in the number of complaints received on radio stations which recorded only one station compared to five stations in 2008 and eight stations in 2007. The number of complaints also decreases from 13 in 2007 to nine complaints in 2008 and only two complaints received in 2009.

Number of Complaints Received by Category in 2009



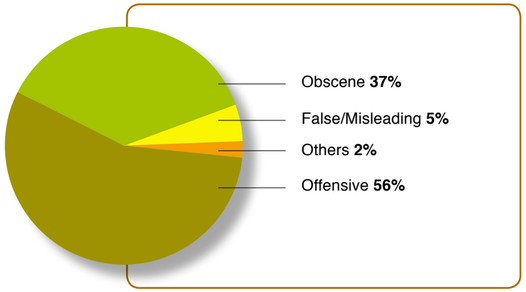
For 2009, it is clear that the complaints received are mostly centred on Internet content, which amounted to 437 complaints. For FTA TV, 11 complaints were received and for ASTRO the number of complaints stood at six. While for radio, General TV and others, the numbers of complaints received were two, one and 19 respectively.

Number of Complaints Received by Month in 2009



The number of complaints received by month in 2009 indicates a steady decline from January till November. However, a slight increase was recorded in December with 37 complaints. The highest number of complaints received was in April at 73 complaints and the lowest amount of complaints received was in September with seven complaints.

Number of Complaints by Area in 2009



The complaints received were categorised into four categories; offensive, obscene, false/misleading, and others.

Most of the complaints received were regarding offensive content where out of 476 complaints, 56% contained offensive contents, mostly from websites. There has been a decrease in the number of complaints regarding websites that contain obscene contents compared to 2008.

Complaint Resolution

In managing the increasing number of incoming complaints, SKMM has developed an internal Standard Operation Procedure (SOP), a guideline to process and evaluate the complaints.

It is noted that most of the complaints came from the public through the Consumer Complaints Bureau. Complaints were also forwarded to SKMM by Ministries and other regulatory bodies or government agencies.

SKMM will refer to the Communications and Multimedia Act 1998 (CMA), relevant license conditions, Content Code, and other regulations to evaluate the complaints.

In the case of internet complaints, the complaints would be reviewed according to Section 211 and 233 under the CMA based on the nature of the content, evidence of intent, and whether there are local elements in the content.

Monitoring Activities

SKMM supervises the Content Applications Service Providers (CASP) and relevant Applications Service Providers (ASP) licensees to ensure compliance to licence conditions as well as other content requirements under the CMA. Monitoring is based on a few focused areas such as, Public Service Announcements (PSA), live programmes, language requirements, commercial airtime as well as general monitoring of programme content. Based on these monitoring activities, SKMM would take enforcement actions against CASPs or service providers found to have breached any content requirements.

In 2009, the majority of PSAs aired by private television stations are focused on the idea of '1 Malaysia' and health issues such as AH1N1, dengue and Aedes. In addition, it has been noted that several private television stations have started the initiatives to publish their own PSA in an effort to help the government to deliver a positive message and with the hope to attract the audience or the Malaysian society through creative PSA content format in accordance to their market segmentation. This can be seen through 8TV and TV3's PSA titled 'Go Green with 8TV' and '1 Malaysia'.

Apart from licence compliance assessments, SKMM also performs monitoring on all forms of networked content including the Internet and mobile content based on complaints and feedback from external parties.

Additionally, SKMM participates in inter-agency committees relating to content monitoring and regulation led by various Ministries including the Ministry of Information Communication and Culture (KPKK), Ministry of Home Affairs (MoHA) and Ministry of Health (MoH).

Besides monitoring content, SKMM also provides advices and guidance to various ministries, government bodies, industry players and international organisations on issues relating to regulation and policies concerning the content industry in Malaysia.

Research Collaboration on Networked Media Content between SKMM and Institutions of Higher Learning

Throughout the years, the media landscape has been changing dramatically along with the development in technology which, in turn, has started new trends of perceptions and attitudes of the public towards media and its content. The rate that the new media content is being consumed is overwhelming. Fueled by the popularity of user-generated content and social media networks, these trends have greatly changed the way messages are shared and how information is organised and disseminated.

Malaysians have clearly shifted to the new media. A study in 2007 revealed that 70% of Malaysian online users read blogs, 35% were bloggers and 80% watched video clips online. The statistic implies that it is not impossible that the new media could replace the conventional media one day.

With these changes taking place in the media landscape, the public now has the ability to access, find and share information almost instantly. These innovative ways even enable them to interact with each other in finding unbiased and reliable sources of information. It is clear that the main reason of the acceptance of these new media by the public is because of the convenience of mobility and sharing that the new media can offer while others cannot. However, it is very crucial for the public to be aware of the negative consequences that the new media can cause if the information is not handled responsibly. Confusion and anxieties will take its toll on the society if false information is transmitted.

As the influence of the new media is growing, its benefits as well as its impacts are becoming immense. This has attracted serious attention by the government, regarding negative outcomes such as pornography, false information and online gambling. Special precaution by the government is needed to enhance consumer protection as well as promoting content development.

To acknowledge such concerns, SKMM has embarked on a research collaboration programme with a number of private and public institutions of higher learning to establish knowledge resources on the usage of new media outlets by Malaysians. The initiative is aimed at assisting the Commission and the Government to achieve national interest objectives such as promoting not only an online environment with quality content, but also proficient and responsible users who are able to gain the benefits of new media to their advantage. This is a part of the regulatory strategy by the Commission to encourage an industry that is self-regulated through education and awareness to the public.

Four universities were selected from 12 proposals involving eight universities in response to Call for Proposal in 2008. The process of selection was a result of careful consideration by a panel represented by members of the academic community, industry and the SKMM. The four universities that were awarded with the research grant are as follows:

University	Title
Universiti Utara Malaysia (UUM)	Ascertaining the influences of Weblogs and their User Created Content in the Blogsphere Community of Malaysia
Universiti Tunku Abdul Rahman (UTAR)	Social Impacts of blogging on young adults: How it shapes individual opinions
Universiti Sains Malaysia (USM)	Young People and New Media - Social Uses, Social Shaping & Social Consequences
Universiti Putra Malaysia (UPM)	'Self-regulatory' framework and mechanism in the Malaysian Media Environment

This one-year project is hoped to produce findings that could be used to develop practical practices and policies for managing both the positive and negative aspects of new media more effectively for long term period.

The public will be able to have access to the findings of the studies through seminars and publications of the SKMM. In addition to this, the SKMM will conduct programmes designed to raise awareness and educate segments of the society beginning with schools within the Klang Valley.

Capacity Building

As part of its capacity building initiatives, SKMM organises several training programmes for its licensees. In 2009, three training programmes were conducted:-

1. **Content Regulation Workshop (30 March 2009)**
   The purpose of this workshop is to provide a refresher course on content requirements to production and programming staff of the broadcasting stations. It is also to clarify the content regulatory environment to the broadcasters as well as to provide the information on new development or issues affecting the broadcasting environment.

2. **Bengkel Kawalselia Berkenaan Kandungan Premium (29 June, 2009)**
   The workshop was aimed to provide information on new developments in SMS-based content requirements. It is also to clarify the regulatory environment to the broadcasters.

3. **Kursus Keterampilan Berbahasa Melayu SKMM-DBP 2009 (2-3 November, 2009)**
   The language workshop is important to give thorough explanation on the proper usage of Bahasa Malaysia to the broadcasters.

Public Relations and Awareness Activities

SKMM continued to promote, educate/advocate the proper use of networked media and develop self-regulation through the following initiatives and activities:

- **Media Interview/Panelist for Talk Show Programme and Seminars**
  In 2009, SKMM appeared on RTM talk show programmes and also participated in a number of media-related seminars in Malaysia and abroad. Details of the interview are as follows:-

Date	Topic	Speaker	Venue
31 Jul 2009	Media law Seminar	Eneng Faridah Iskandar (Director, Regulation Department)	Universiti Malaya, Kuala Lumpur
31 Jul 2009	'Jenayah Siber'	Abdul Halim Ahmad (Acting Senior Director, Monitoring and Enforcement Division)	Angkasapuri, Kuala Lumpur
9 Oct 2009	'Kebebasan Bersuara Media Baru'	Abdul Halim Ahmad (Acting Senior Director, Monitoring and Enforcement Division)	Angkasapuri, Kuala Lumpur
22 - 30 Oct 2009	International Institude of Communication & International Regulators and Annual Conference	Eneng Faridah Iskandar (Director, Regulation Department)	Montreal, Canada
15 - 18 Nov 2009	'Bengkel Pemantauan Laman Web Berunsur Islam'	Eneng Faridah Iskandar (Director, Regulation Department)	Primula Beach Resort, Terengganu
17 Dec 2009	'Undang-undang Siber di Malaysia'	Eneng Faridah Iskandar (Director, Regulation Department)	Angakasapuri, Kuala Lumpur

- **Other Event**
  Luncheon between Broad casters and YB Minister of Information Communications and Culture

  A luncheon between the Malaysian Information Communication and Culture Minister, Datuk Seri Utama Dr. Rais Yatim with CEOs/ Senior Management of all private television and radio stations was held on 12 May 2009 at Seri Pacific Hotel, Kuala Lumpur. The meeting was held as an early step by the Ministry to convey the government's hope that broadcasting stations would help realise the 1Malaysia concept mooted by Prime Minister Datuk Seri Najib Tun Razak when he took over the country's leadership.

  The minister hoped that private and public broadcasting stations would support the government's 1Malaysia concept by airing programmes which promote positive values in the efforts to build a nation state.

  Datuk Seri Utama Dr. Rais Yatim said the government hoped that broadcasters would work with the government so that the message could be conveyed to the people. He hoped that TV and radio stations would share the government's aspiration in creating a society that has high integrity, knowledgeable, possess strong character and appreciative of the freedom given to them.

Communications and Multimedia Content Forum of Malaysia

The Communications and Multimedia Content Forum of Malaysia (CMCF) has been designated as a content forum under Section 212 of the Communications and Multimedia Act, 1998. CMCF was established in February 2001, as a society under the aegis of the SKMM to govern content and address content related issues disseminated by way of electronic networked medium.

The management of the CMCF rests with its Council, which comprises a Chairman and 18 council members elected from the six Ordinary member categories. The CMCF's Executive Office is in charged with the day-to-day running of its operations and is headed by an Executive Director, and assisted by a full time Secretariat.

In 2009, CMCF has undertaken 50 external activities that are in line with the spirit of 1Malaysia for the purposes of publicity and creating greater awareness of its role and functions. Among major activities were Dialogue on Child Protection with UNICEF Malaysia and Pacific and Asian Communication Association (PACA) Conference at Universiti Putra Malaysia (UPM), Selangor. Other than that, CMCF has also submitted articles to daily newspapers, conducted several media interviews and road shows, distributed brochures and fliers as well as improved the organisation's website to help better the public's understanding about media content and their rights as consumers.

2009 was a challenging year for CMCF's Complaints Bureau as it had recorded the highest number of complaints which stood at 98 as at 31 December 2009. Overall, CMCF received and resolved 81 complaints, attended to 17 requests for content advisory, two cases of mediation or hearing, 31 decisions pending and closed 67 cases. The percentage of cases resolved by the Complaints Bureau for the year 2009 amounted to 68.4% as opposed to 86.4% in 2008. The difficulty of CMCF for not having extra territorial jurisdiction played a large part as a number of complaints were on content hosted overseas. Effectively however, the CMCF's Complaints Bureau had put in every effort to complete the deliberation of cases within the shortest time period. The summary of complaints received according to category type is as follows:

Category	No. of Complaints Received
Advertising	13
Mobile contents/services	8
Broadcasting content (TV & Radio)	9
Internet content	44
Others	7

CMCF has also conducted and participated in a number of meetings with the SKMM and the Ministry as well as with the private parties in the communication fields to discuss on particular matters concerning the public and the Ministry. For example, a meeting was held on the definition and legal scope on Child Pornography with SKMM and SUHAKAM which was aimed to provide views and feedback with regard to the definition and legal scope of child pornography to strengthen the implementation of legal action against crime against children.

As a self regulatory body under the SKMM, CMCF has set a line of improvements and initiatives for the year 2010 to better monitor and provide the best services to the public and industry. One of the initiatives is that the completion of the Complaints Bureau's section in the CMCF website will enable CMCF members and other related parties to deliberate on each case more effectively and in a timely manner.

INFORMATION AND NETWORK SECURITY

SKMM Network Security Centre (SNSC)

One of the National Policy Objectives in the CMA is to ensure reliable and secure network. From this perspective, SKMM has taken the responsibility to create for stakeholders and the public a proactive platform that will be able to:

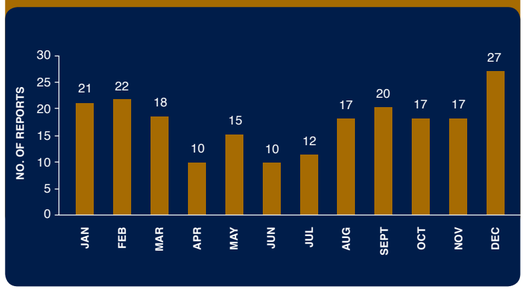
- Disseminate early warning on possible threats, and
- Provide critical network infrastructure information.

This is done through the SKMM Network Security Centre (SNSC) project. The SNSC ensures that Malaysian Internet traffic is secure through a dedicated team monitoring Malaysia Internet traffic for network threats in collaboration with Malaysian Internet Service Providers (ISPs). The SNSC serves like a national Internet network thermometer to provide overall understanding of macro cyber threat level. The work has the involvement and the cooperation of both public and private sectors.

In 2009, a total of 206 Phishing incidents involving local banking and financial institutions were reported to SNSC (2008: 228 Phishing incidents). SNSC collaborates with various parties in raising public awareness on Phishing and in taking down the reported Phishing sites. The parties concerned are as follows:

- Internet Banking Task Force (IBTF), an industry task force looking at issues of Internet banking fraud and financial institutions.
- Cybersecurity Malaysia (CSM) that services in the fields of cyber security such as Digital Forensics and Wireless

Phishing Incidents Reported in 2009



Source: Industry, SKMM

Cyber Security Portals for Reference

In 2008, the SNSC collaborated with IBTF and CSM on the development of the SKMM Anti-Phishing Portal at http://www.skmm.gov.my/antiphishing. This is the portal to which Internet users will be redirected if they had visited some of the reported Phishing sites through Malaysian ISPs. The portal provides information to the Malaysian public on Phishing incidents. It includes showing Internet users how they can identify Phishing and protect themselves from financial losses due to such incidents.

SKMM also has a cyber security portal at http://skmm.gov.my/cybersecurity. Started in early 2009, the SKMM Cybersecurity Portal is designed to:

- Raise awareness and provide invaluable network security related information to home users, organisations and service providers
- Engage and empower both the public and private sectors on cyber security issues.

The portal contains information on network security issues for both technical and non-technical audience. The information provided is in simple terms. It has articles that are easy to understand so as to empower non-technical users in taking appropriate steps towards securing themselves against cyber threats.

Cyber Security Activities

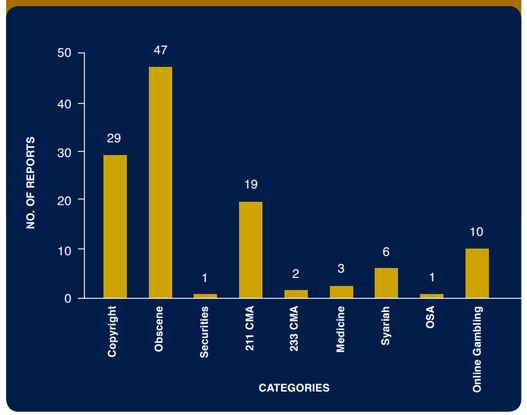
SNSC is active in campaigns to create awareness on network security among the public. Such campaigns inform on how the public can ensure their own safety when online, as well as enlist assistance should they experience cyber attack.

In 2009, SNSC conducted and participated in many events and talks organised through the SKMM Regional Offices.

SNSC works closely with other Malaysian enforcement agencies to prevent misuse of network facilities, network service, application service and content application service. To date, SKMM has taken enforcement actions under sections 211 and 233 of the CMA. These involve the dissemination of offensive content and misuse of network services or application services.

At ASEAN level, SNSC participated in the ASEAN Cyber Drill (ACID 3) exercise to enhance coordination among ASEAN member states in mitigating cyber attacks. SNSC collaborates with its counterparts in ASEAN and APEC on various network security capacity building and information sharing initiatives. In 2009, SNSC was part of the X-Maya 2 cyber Drill. The exercise was organised by the National Security Council to gauge national preparedness in dealing with cyber incidents. Other participants in this cyber drill exercise were Telekom Malaysia and Jaring.

Misuse of Network Facilities Reported in 2009



Source: Industry, SKMM

CONSUMER COMPLAINTS

How to Make a Complaint

The SKMM Consumer Complaints Bureau handles types of complaints ranging from those on telecommunications services to broadcasting, Internet, postal and signature. All these are within the purview of the SKMM in respect of the CMA, the Postal Services Act and the Digital Signature Act.

Nevertheless, the first avenue to complain is to the service providers. If the complaint is unresolved, consumers can lodge complaint to the Communications and Multimedia Consumer Forum of Malaysia. The consumer may lodge a complaint to SKMM Consumer Complaints Bureau if the consumer is still not satisfied with the resolution of the complaint by the Forum.

In the year 2009, the SKMM Consumer Complaints Bureau received a total of 6,178 complaints compared with 4,289 complaints in 2008. This represents an increase of 44%. Overall, the number of complaints received is on a significantly trend over the last eight years as shown.

For the Consumer - How to Make a Complaint

Telecommunication Services

Your fixed line and mobile phone service (no coverage, dropped calls, billing, false charges, charge imposed for SMS not subscribed or requested, others)

For dropped calls and no coverage, please provide date, time of incidence, location (i.e., name of town/village/place), roads or description of the area and landmarks, if any.

TV/Radio Programmes

Programmes aired on TV/Radio (quality, contents, others)

Internet Services

Your Internet Service (quality, availability, others)

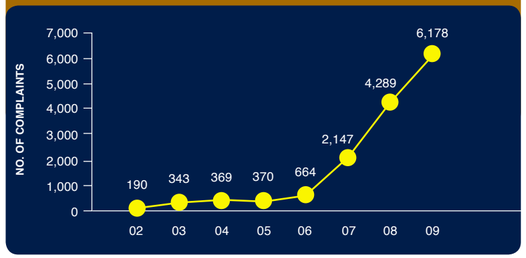
Postal Services

Postal/courier service and digital signatures (availability, delivery, others)

Consumer can lodge complaint to the SKMM Consumer Complaints Bureau through the following channels:

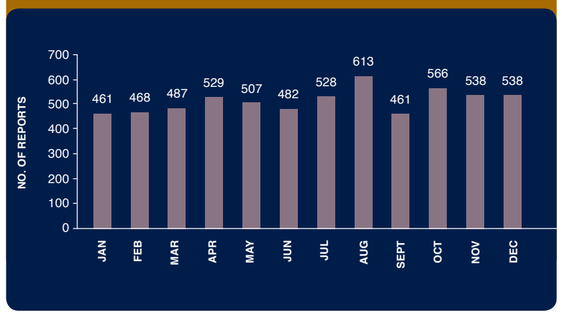
Online complaints: http://aduan.skmm.gov.my
Write/walk in: SKMM Consumer Complaints Bureau, Suruhanjaya Komunikasi dan Multimedia Malaysia, 63000 Cyberjaya, Selangor. Tel: 603 8688 8000 Fax: 603 8688 1880
Email: aduanskmm@cmc.gov.my
Complaint hotline: 1-800-888-030 (8.30am - 5.30pm, Mon - Fri)
SMS: SKMM ADUAN [complaints details] and SMS to 15888

Trend of Consumer Complaints 2002 - 2009



Source: Industry, SKMM

Number of Complaints Received by Month in 2009



Source: Industry, SKMM

From the total 6,178 complaints received in 2009, 82% were regarding service provisioning and service performance. The remaining 12% of complaints were related to content (Internet, SMS, TV and radio), spectrum interference, telecommunication structure and radiation, illegal installation of TV parabolic dish cybercrime such as phishing, and other miscellaneous complaints. There were also complaints received that are not under SKMM jurisdiction.

The highest complaints received regarding poor service relate to the broadband/3G services. The most frequent complaints relate to poor Internet connection/speed. Customers complaint about slow broadband connection, unstable connection or speed did not meet the promised speed in the package subscribed. Other main complaints are on billing and charging, service disruption or downtime, unsuccessful or delay in installation or activation of service and lack of coverage.

Type of Complaints Received in 2009

Source: Industry, SKMM

Cellular service recorded the second highest complaints received. Top most complaints are on SMS mobile content service such as unsolicited promotional and unsubscribed SMS, billing and charging, Mobile Network Portability (MNP) porting reject, poor network coverage and false/ fraudulent registration. The third highest complaint is on Pay TV service where customers are not happy with the revised price of a package subscribed. Other complaints received are on the quality/service delivery of Postal/Courier, Fixed line, Internet dial up, IP Telephony, payphone and Free to Air TV and Radio.

CONSUMER ISSUES

Poor broadband service

Top most issue raised by consumer is on the quality of broadband service of both wired and wireless broadband. Most of the users are generally dissatisfied with the “best effort” quality of broadband service which contributed a substantial figure to the overall complaints. Customers complained on slow broadband connection/speed which not meeting the speed of the subscribed package.

As a regulatory measure to control industry’s standards and quality of service, SKMM has initiated its review on its Mandatory Standard on Quality of Service for Wired Broadband. SKMM also is in the process of formulating the Mandatory Standard on Quality of Service for wireless broadband due to the increase in wireless broadband subscription.

The Fair Usage Policy imposed by the service providers created dissatisfaction among the customers particularly who are heavy users when their usage volume been capped and their speed been throttle to a lower speed. The service providers must made known this condition to the customer upfront and clearly explained in the Terms and Conditions of the service. SKMM recognized that there are users who need more bandwidth than others (heavy users). The service providers have been asked to look into this and offer other packages to cater these users.

Biling problems and charging

Billing disputes is the most type of complaint received among the service providers. Customers claimed being billed for service not used i.e. GPRS. The finding shows the usage are valid and may due to customer’s phone setting which trigger the internet connection without customer awareness. Service provider on goodwill basis will waive the charges on case to case basis. From our observation, the lack of awareness of the user about the features of the phone particularly smart phone and the service contribute to the high bills.

There are also billing dispute cases on overcharging due technical problem and being billed for unused service due to service termination not processed which service provider will rectify and refund to the customer.

Issue on credit limit continues to be highlighted. Customers complained that their lines not barred after exceeding the credit limit set by the service provider. From the finding, there are conditions to the baring which was not stated upfront by the service providers such as no barring during weekend or public holidays, while roaming, during system maintenance. However, there are also cases whereby the lines were not barred due to technical problem. Service providers have been asked to educate their customers about the credit limit.

SKMM also received complaints relating to service provider’s poor billing system whereby the bill issued is not timely/late, billing charging delay and payment made not updated/captured in the system. First Information Report (FIR) has been raised for cases with possible breach of the billing provision in the General Consumer Code (GCC).

SMS mobile content services

SKMM continue to receive complaints relating to SMS mobile content services provided by the Telcos and External Content Providers. The main complaints are:

- Unsolicited/Promotional SMS
- Being charged for unsubscribed SMS
- Service Termination Failed

In addressing issues relating to SMS mobile content and services, a Commission Determination on the Mandatory Standard for the Provision of Mobile Content Services has been issued in November 2009 and will come into operation on 1 July 2010.

Main Consumer Issues in 2009

Maxis – Unauthorised renewal of customer under SME package

SKMM received complaints from customers under Maxis SME Community Package whose contracts have been renewed by Maxis for another 24 months without their consent and authorisation. Further, the new terms and condition imposed penalty cost for early termination of the contract.

Based on the complaints received, Maxis have agreed to waive off penalty charges owing to the customer decision to withdraw from the auto renewal after the expired date. Affected customers whom they are unable to contact will have their new contract package relating to auto renewal program component removed and will revert to enjoy benefits as per the original rate plan.

DiGi Happy prepaid – Revised rates

Happy, a prepaid provider under DiGi was launched in 2007 which promised the best value for their subscriber among others a maximum of 99 cent per call charge up to 45 minutes of talk time at any time of the day and at any day of the week to any networks.

In January 2009, Happy introduced the new rates structure and the new rates had automatically applied to the existing customers who had subscribed to the service. Happy customers who had earlier subscribed to the service due to the attractiveness of the rates felt cheated and not satisfied with these new rates.

To mitigate the matters, DiGi compensated customers affected by the revision and upon request also offered an option to terminate with a prorated refund of their balance of air time.

Celcom revised terms and conditions for Celcom 1+5 plan

SKMM received complaints pertaining to the practice of Celcom to revise terms and conditions for Celcom 1+5 postpaid plan. The existing plan which offers free 40 hours of voice and video calls were reduced to 20 hours with effective from 1 September 2009. The existing customers have been auto migrated to the new revised plan without being given any option to opt in for the new plan or remain with the existing plan.

According to Celcom, due to overwhelming response to the said package, an excessive call made by the customers has led to congestion of the network and reduction in the quality of service which made it necessary for them to revise the package accordingly. As there is no penalty clause for early termination, customers can choose to terminate the service if the new offering is no longer attractive.

Astro price increase for Sports package

In August 2009, Astro has notified all their customers that the price for sports package will be increased by RM 12.00 starting from the September billing cycle. Following this notification, SKMM received complaints from customers who are not happy with the price increase.

According to Astro, the price increase on Astro Sports package is applied to all ASTRO subscribers due to the high cost of sports content. The price increment is not due to the increased expenditure in the football sports arena only, but to all sports events around the world.

In addressing the customer complaints, Astro agreed to allow customers who do not wish to continue with the subscription of the sports package to downgrade the package and the switching fees are also waived.

Most of these main consumer issues are on the unfair practice by the service providers. The issue of unfair practice by the service provider is currently been looked into by the Consumer Forum as they are in the midst of reviewing the General Consumer Code. The relevant provision will be included to ensure consumers are protected of their right and interest.

INVESTIGATION DEPARTMENT

Enforcement activities in 2009 have shown significant increase in the number of reports received by SKMM for enforcement actions to be taken under the Communications and Multimedia Act (CMA) 1998 and Postal Services Act (PSA) 1991. 352 cases were investigated by SKMM for various offences under the CMA 1998, and four cases under PSA 1991.

The cases investigated are as follows:-

No.	Cases	Law	No. of cases
1	Sending offensive, obscene, indecent, menacing or false short messaging services (SMS)	Section 233 (1) (A) CMA	66
2	Sending/Posting offensive, obscene, indecent, menacing emails/websites or blogs	Section 211/233 (1) (A) CMA	82
3	Making prank calls to 999 emergency number	Section 233 (1) (B) CMA	50
4	Breach of license condition	Section 242 CMA	24
5	Use of apparatus without apparatus assignment	Reg. 20, C&M (Spectrum) Regulation	13
6	Possession of non standard equipments	Section 239 CMA	36
7	Providing network services and application services without license	Section 126 CMA	57
8	Obligation of a designated universal service provider	Reg. 11, C&M (USP) Regulation	1
9	Failure to submit Return of Net Revenue (USP)	Reg. 29, C&M (USP) Regulation	10
10	Damage to network facilities	Section 235 CMA	1
11	Failure to deal reasonably with consumer complaint	Section 188 CMA	8
12	Providing courier services without license	Section 25 PSA	4
	Total Cases Investigated		**352**

From the total of 352 cases investigated, 48 were non-compliance cases committed by the licensees. The cases were as follows:-

No.	Type of Offenses	No. of cases
1	Breach of licence conditions i) Non Compliance to Mandatory Standard on Quality Service ii) Non Compliance to General Consumer Code iii) Non Compliance on Prepaid Registration (35 cases) iv) Others	5
2	Failure to deal reasonably with consumer complaints	8
3	Failure to submit audited account	0
4	Failure to submit RONR	10
5	Failure to contribute to USP Fund	0
6	Non Compliance to a Direction of the Commission	12
7	Use Apparatus Assignment without AA	13
	Total	**48**

The non-compliance offences committed by the licensees were mostly preventable cases and if positive steps had been taken, these cases would not have reoccured. Some licensees had taken the initiative of organising compliance seminars for their staff with the objectives of educating their staff on compliance issues, CMA 1998 and the relevant Regulations and to ensure all the compliance issues are adhered to. Speakers from SKMM were invited to give presentations on all aspects of compliance during these seminars. About 700 staff of the licensees have attended these seminars.

In 2010, SKMM will organise Compliance Seminars to all licensees to educate them on compliance issues with the purpose of reducing cases of non compliances and to improve self regulation.

No.	Compounding of cases	Amount
1	Compound Offered	460,000
2	Compound Paid	200,000
3	Compound Pending Appeal	260,000

PROSECUTION DEPARTMENT

No.	Cases Investigated	No. of Cases
1	Charged in courts	13
2	Compounding of cases	38
3	Pending investigations/DPP's decision	158
4	Cases closed due to insufficiency of evidence	68

No.	Cases Charged in Court	No. of Cases
1	Licensees	
	i) Breach of License Condition	1
	ii) Failure to submit RONR	1
	iii) Service without license	1
2	Other Offenders	
	i) Offensive Comments	7
	ii) Unlawful use, possession or supply of non-standard equipment	2
	iii) Unlicensed Network Facility, Network Services and Application Services	1
Total		**13**

No.	Status of Cases Charged in Court	No. of Cases
1	Pending Trial	5
2	Found Guilty	6
3	Discharged Not Amounting to Acquittal (DNAA)	2

09

It is the quality of the human capital that will determine if we can meet our aspirations of achieving a high value, and high income, economy by 2020. As we progress towards a new phase of ICT development, we must do our part to equip fellow Malaysians with the skills and knowledge they require to succeed as a productive member of the knowledge-led economy. Such initiatives are crucial to the development of the local ICT industry.

Human Capital Management and Strategic Information System

HUMAN CAPITAL DEVELOPMENT

The Human Capital Management Division began 2009 with a focus on replenishing staff members for the coming years, foreshadowing the challenges of existing staff members in the strategic level job grade who would soon become eligible for compulsory retirement. In addition, the Division set out to retain the knowledge of longer serving staff members while continue recruiting younger, more diverse staff members, at the same time continuing to promote a performance-based culture.

However, the challenge did not stop at just recruiting new staff: instead it is imperative that the Division has a strong workforce to support strategies and maintains an exciting work culture that attracts and retains the highest quality staff, both now and in the future.

In this context, the Human Capital Division implemented programmes which were designed to provide challenges to meet Key Result Areas (KRAs) and individual Key Performance Indicators (KPIs).

In October 2009, SKMM welcomed Y.Bhg. Tan Sri Khalid Ramli as the new SKMM Chairman. SKMM then embarked on a journey to develop new forward-looking initiatives and strategies towards achieving a high-income and knowledge-based nation. The multimedia industry plays a crucial role towards realising this “Malaysia as the ICT Regional Hub” vision and SKMM is at the centre of it all.

While there is still much to be done to emerge as a leaner and stronger organisation, SKMM is well positioned to realign current staff members around its key priorities and to begin to successfully recruit talent with the necessary skills and diverse backgrounds needed for a better and brighter future.

PREPARING FOR THE NEXT GENERATION

The need to attract and retain high-calibre employees remains focused in the SKMM people management agenda.

Recruitment

There were 67 vacancies in 2009 with breakdowns as follows:
New Headcount – 42
Resignation / Retirement – 25

There were 67 recruitments for the year of which 70% were for executive grade level (graduates).

Resignation

There were 25 resignations recorded in 2009.

Employee Attrition rate is at 6%.

Promotion

There were no promotion exercises conducted in 2009.

Talent strength as at 31 December 2009

Positions	Grade	Number Of Staff	Sub Total
Chief Operating Officer	P12	1	Executive
Senior Director	P8	9	
Director	P7	21	
Director	P6	34	
Deputy Director / Senior Executive / Senior Engineer	P5	54	
Assistant Director / Executive / Engineer	P4	156	275
Executive Secretary / Assistant Executive	S3	11	Non-Executive
Assistant Executive / Secretary	S2	99	
Driver / General Worker	S1	27	137
TOTAL			**412**

PLANNING FOR THE FUTURE

Mission

The Human Capital Management Division is committed to ensuring availability, productivity and sustainability of suitably motivated and engaged talents to realise SKMM’s mission and aspirations in line with the national policy objectives.

In 2009, the Human Capital Management Division developed strategic plans that included several multi-year priorities in the areas of performance excellence and organisational development. Achievements in these priority areas are noted below:

Performance Excellence

A multi-year effort to deliver technical and business skill programmes to all staff members continued throughout 2009. People development is both a value and the cornerstone for the ‘Growing our own timber’ programme.

In the context of creating a performance-based culture, SKMM has redesigned and further strengthened the Performance Management Systems, known as ACHIEVE. It has been initiated in the first quarter of 2009 with a briefing to the Senior Management team, followed by a series of communication sessions and in-house workshops attended by staff members to develop individual KRAs and KPIs. The year-end performance review has shown better correlation between staff performance and SKMM's achievements.

In terms of enhancing skills and knowledge, SKMM has invested approximately RM1.2 million in training, which is about 5% of payroll in various skills development initiatives.

In-house trainings and selected skills building workshops and certificate programmes were well attended. The SKMM Academy organised a total of 132 programmes attended by 1,069 participants. Training days attended by staff members totaled 535 days with an average of eight days per staff.

Organisational Development

SKMM's organisation development practices continued to focus on building a performance driven culture to ensure that the deliverables of its core mandate of ensuring effective Communication and Multimedia regulation and market development. The year 2009 saw focused reassesment and development of Framework for Industry Development 2009–2011 (FID 3). Initiatives were undertaken to enhance SKMM's intended strategic thrusts, deliverables and tasks associated with it, apart from taking stock of all undelivered initiatives from FID 1 and 2.

SKMM has also engaged with all licensees in high level industry consultation sessions to help establish greater clarity, alignment and consensus on the strategic objectives, focus and tasks in the context of the organisational goals. This had also created greater awareness of interdependencies and opportunities for more collaborative alliances. The programmes implemented in relation to the desired strategic thrusts included the articulation of more specific strategic results, development of performance indicators and establishing a systematic process for reviewing performance at mid-term and year end. For 2009, the SKMM organisational report card marked an improvement from the previous year.

The organisational development strategies and practices to support SKMM's role have yielded demonstrable results. Business process improvement, a kick-off project undertaken in 2009, was a visible initiative across the organisation, reflected by greater capacity to respond to the higher performance expectations and achievements of goals set. Lean Sigma and Cross Functional Process Mapping (CFPM) was chosen as the process improvement/reengineering methodologies.

A collaborative working relationship was established with Motorola University Asia Pacific (MUAP) on the knowledge and skill transfer of the trademarked methodologies by introducing interactive action learning and Six Sigma Green Belt certification. It is an ongoing effort and is expected to spur improvement in our delivery system.

STRATEGIC INFORMATION SYSTEM DIVISION (SISD)

The year 2009 witnessed SISD continuing its pursuit to transform an IT department into a strategic partnership within SKMM, as well as the industry. It started the ball rolling by focusing on its operational excellence as the main "ingredient" in positioning IT as a strategic division within SKMM. It made its way through providing efficient and integrated IT service delivery based on best practices such as ITIL, CoBIT and PRINCE2. SISD aspires to become one of SKMM's core competitive capabilities by provisioning effective solutions and deliver the best IT services.

We ensured that IT connectivity remained to be our topmost priority. Therefore, SISD team has taken several initiatives to provide better IT facilities for SKMM staffs. SKMM data centre has been upgraded accordingly to the industry's best practice. SISD has also upgraded SKMM's Wide Area Network Connectivity for its Headquarters office located in Cyberjaya as well as other Regional Offices (nationwide). This is to ensure SKMM benefited high availability from a sophisticated and interconnected infrastructure in line with its rapid growth.

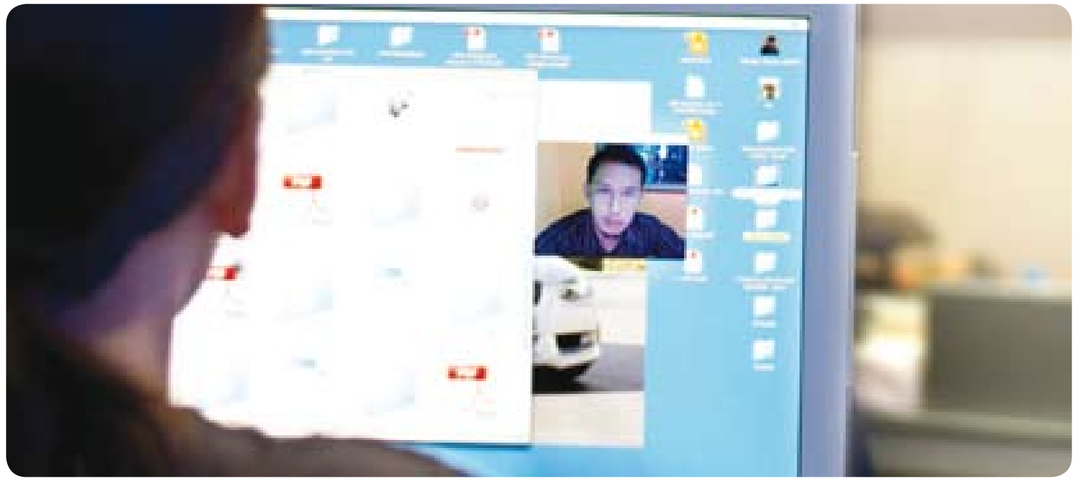
IT Helpdesk team has shown significant improvement since its debut in June 2008 in customer responsiveness, providing effective solutions and supporting SKMM staffs' productivity.

The year 2009 also shown SISD proactively spearheading several initiatives to consolidate and streamline its IT resources in an effort to reduce costs and simplify management. On top of that, SISD has also started integrating all strategic, operational and support applications in order to simplify and automate business processes to the greatest extent possible.

In the next three years, SISD has pledged to focus upgrading its IT Infrastructure and systems to support SKMM's operations. The team has conducted a thorough study and several assessments with the objective to provide a flexible responsive IT architecture framework to improve the delivery of service to SKMM's clients.

Internally, SISD team is focusing on maintaining its excellent operational efficiency by increasing IT agility, enhancing on IT resource planning and project management skills while continuously improving its end-to-end Service Level Agreement (SLA).

In closing, SISD expects its high-calibre workforce, systems and infrastructure will all assist in the making of a prosperous 2010.



Mobility, fast speed and bigger bandwidth services are pushing greater usage of spectrum. Hence, several spectrum bands have been identified to be re-farmed in the near future. However, the standards and spectrum owned by a country where ICT is concerned should not be commercial interests but to serve humanity.

10

International Affairs

INTRODUCTION

SKMM continues to participate actively in international fora to promote Malaysia's interest in the communications and multimedia industry. Working in close partnership with the Ministry of Information Communication and Culture (KPKK), SKMM represents Malaysia as the regulatory authority in communications and multimedia and at the same time builds and coordinates the nation's international profile and activities in this industry. SKMM's presence at such fora ensures that the country is able to:

- participate actively in influencing outcomes and developments in international fora;
- Manage progressive market liberalisation of the communications and multimedia sector;
- Engage local communications and multimedia industry players to identify opportunities in foreign markets; and
- Keep abreast of the latest international developments and trends in the communications and multimedia sector.

SKMM's international activites are guided by the Communications and Multimedia Act 1998, particularly the first National Policy Objective in facilitating Malaysia's transformation into an industry global hub. Consequently SKMM engages with various international organisations as listed in the Ministerial Direction issued under Section 269 of the Communications and Multimedia Act 1998.

SKMM works with its various counterparts in the region and internationally to enhance understanding of regulatory measures and best practices. This has the effect of enhancing mutual industry competitiveness and growth, facilitate inbound and outbound investments and trade as well as develop network and human resource capabilities in communications and multimedia hardware manufacturing and the creation of applications and transactions. Towards this end, SKMM is also involved as the sector expert in various bilateral and multilateral negotiations such as the Free Trade Agreements or Economic Partnership Agreements which are lead by the Ministry of Foreign Affairs, Ministry of International Trade and Industry and MICC.

Currently Malaysia holds several appointments with regional and international organisations which serve to strengthen the country's sphere of influence in the respective fora:

1. ASEAN ICT Center Director (founding director) - Puan Nur Sulyna Abdullah, Director, International Affairs
2. APT Policy and Regulatory Forum Vice Chair - Puan Nur Sulyna Abdullah, Director, International Affairs
3. Chairperson of the APT Preparatory Group for the World Telecommunication Development Conference 2010 – Puan Nur Sulyna Abdullah, Director, International Affairs
4. Asia Pacific Internet Research Alliance Board Member - Mr. Koay Hock Eng, Director, Statistical and Knowledge Resource Department

Functional Focus Areas

- Management of frequency, numbering and internet addressing
- Standards and Interoperability
- Mutual Recognition Arrangements
- Trade and Liberalisation
- Security and Harmonisation of e-commerce activities
- Tariffs and accounting rates
- Content
- Cooperation and information exchange

Sectoral Focus Areas

Sectorally, SKMM's activities can viewed through the following focus areas:

Asean Region

SKMM participates actively in the following ASEAN fora:

- ASEAN Telecommunication Regulators' Council (ATRC)
- ASEAN Telecommunications and IT Senior Officials Meeting (TELSOM)
- ASEAN Telecommunications and IT Ministers' Meeting (TELMIN)
- Border Coordination Meetings to manage and resolve any frequency interference and allocation matters with Malaysia's neighbours:
  - Frequency Allocation Committee of Singapore, Malaysia and Brunei Darussalam (FACSMAB)
  - Joint Technical Committee on Coordination and Assignment of Frequencies along the Malaysia-Thailand Common Border (JTC)
  - Joint Comunications Committee between Malaysia and Indonesia (JCC)
  - Trilateral coordination involving Indonesia, Malaysia and Singapore

ASEAN ICT Masterplan

The ASEAN TELSOM is currently developing the ASEAN ICT Masterplan in response to the rapid changes in technology and industry convergence as well as to increase ASEAN's competitiveness in ICT. The ASEAN TELSOM is of the view that the Masterplan will enhance ASEAN's attractiveness for investment as well as augment current efforts to bridge the digital divide within ASEAN.

The Masterplan is expected to be completed, adopted and endorsed by TELMIN at the 10th ASEAN TELMIN which will be hosted by Malaysia in 2010. While originally proposed by Singapore, TELSOM has agreed for the ASEAN ICT Center to come onboard as the co-lead for this crucial ASEAN project.

Consequently the ASEAN ICT Centre's Directorship under Puan Nur Sulyna Abdullah, has been extended till the 10th TELMIN in order for her to oversee the development and completion of the Masterplan as co-proponent of this project.

Asia Pacific Region

SKMM is actively involved in the following fora in the Asia Pacific Region:

- Asia Pacific Telecommunity (APT)
- APEC Telecommunications Working Group (APEC TEL)
- Asia Pacific Postal Union (APPU)
- Asia Pacific Broadcast Regulator's Roundtable

Preparatoratory Meetings for ITU World Telecommunication Development Conference 2010 (WTDC-10) And The Plenipotentiary Conference 2010 (PP-10)

SKMM together with KPKK have been actively involved in the preparatory meetings lead by the Asia Pacific Telecommunity for the coming WTDC 10 and PP10. A series of regional preparatory meetings are being organised, with the first one being held in Kuala Lumpur, at which Puan Nur Sulyna Abdullah was elected as the chair for the APT Preparatory Group for the WTDC-10.

The World Telecommunication Development Conference is held every four years. A number of Regional Preparatory Meetings are convened within the period leading up to the Conference. The Conference serves as a forum for discussion on the global development of telecommunications and ICT. In addition, the Conference reviews the numerous programmes and projects undertaken by the ITU Development Sector. The Conference will also set the focus for the next four years and allows countries to discuss and explore future projects for their respective regions.

The Plenipotentiary Conference is the top policy making organ of the ITU. The Conference, also held every four years, sets the ITU policies, strategic and financial plans for the next four years. It is during the Plenipotentiary Conference that the Senior Management team of the ITU, members of the Council and Radio Regulations Board are elected. This is a key event for the ITU Member States as it decides the future role of the ITU and its role in influencing the development of ICT worldwide.

Both the WTDC-10 and PP-10 will be held in Hyderabad, India and Guadalajara, Mexico respectively.

International / Intergovernmental Organisations

SKMM actively participates in the activities of the following:

- International Telecommunication Union (ITU)
- Universal Postal Union (UPU)
- World Trade Organisation (WTO)
- Internet Corporation for Assigned Names and Numbers (ICANN)
- International Multilateral Partnership Against Cyber Threats (IMPACT)

The Malaysia Pavilion At The ITU Telecom World 2009

SKMM organised the Malaysia pavilion at the ITU Telecom World 2009 which was held in Geneva from 5 – 9 October 2009.

The ITU Telecom World is an international conference and exhibition held once every three years for the global telecommunication and ICT sector by the International Telecommunication Union. It brings together the world's leading ICT companies, decision-makers, organisations and governments for a major exhibition and a high-level Forum to address shared global challenges in today's information society and showcases best practices worldwide.

Among the reasons for Malaysia's participation in the event were:

- to provide a platform for the Malaysian industry to showcase convergence and developments in Malaysia; and
- to indicate Malaysia's high level of commitment to the ITU and reciprocate ITU's support for Malaysia as a key partner in their developmental agenda e.g. through the hosting of their Center of Excellence for Rural ICT Development at the Universiti Utara Malaysia

This initiative was led by the International Affairs Department in collaboration with the following eight industry players (pavilion members):

1. Measat Broadcast Network Systems
2. Celcom Axiata Berhad
3. DiGi Telecommunications Sdn Bhd
4. Maxis Mobile Services Sdn Bhd
5. MEASAT Satellite Systems Sdn. Bhd.
6. Packet One Networks (M) Sdn Bhd
7. Telekom Malaysia Berhad; and
8. Multimedia Development Corporation

The Malaysian delegation was led by the Deputy Minister of Information, Communications and Culture, YB Dato' Joseph Salang and accompanied by the Acting Chairman of SKMM, Dato' Mohamed Sharil Tarmizi as well as the Chairmen and CEOs of the pavilion members.

International Meetings Statistics 2009

As at 31 December 2009, towards the functional focus areas, SKMM participated in 109 international meetings categorised as follows:

ASEAN – 16 meetings
APT – 10 meetings
ITU – 26 meetings
Border Coordination – 17 meetings
Postal – 2 meetings
Apectel – 4 meetings
Satellite Coordination – 8 meetings
Internet related – 4 meetings
Exhibitions – 2 meetings
Study Visits – 3 meetings
Others – 20 meetings

International Visitors Programme

SKMM continues to welcome various foreign delegations on study visits in response to requests to share our experiences in a converged environment. In 2009, we received a total of 6 delegations as listed below:

No.	Foreign Delegation
1.	Ministry of Transportation and Telecommunications, Chile
2.	Department of Communication and Information, Papua New Guinea
3.	Department of Communication and Information, Papua New Guinea and Papua New Guinea Radiocommunications and Telecommunications Technical Authority (PANGTEL)
4.	Tanzania Communications Regulatory Authority (TCRA)
5.	Papua New Guinea Radiocommunications and Telecommunications Technical Authority (PANGTEL)
6.	Delegation from France comprising of representatives from government bodies and industry in conjunction with Seminar on Digital TV organised by the Embassy of France with the collaboration of the General Directorate for Competitiveness, Industry and Services, France

Malaysians are now more exposed to the various media platforms than in previous years. As the authority and custodian of the Communications and Multimedia Act 1998, Postal Services Act 2001 and Digital Signature Act 1997, the Commission's functions and responsibility are increasingly becoming more apparent and significant.

11

Corporate Highlights

CORPORATE HIGHLIGHTS 2009

1 **7 JAN**
Launching of Community Broadband Centre (CBC) Besut, Terengganu

2 **30 JAN**
U-Library Trial Run, Kuala Lumpur

3 **26 FEB**
Development of the New Media - Four Universities Awarded Research Grant by SKMM, Cyberjaya

4 **9 MAR**
Contentprenuer NextGen Award at KLPAC, Kuala Lumpur

5 **19 MAR**
Briefing on Use of Spectrum for video surveillance in public places, Cyberjaya

6 **16 APR**
Monthly Assembly of the Ministry of Information Communication & Culture, Bangunan Abdul Samad, Kuala Lumpur

7 **17 APR**
Handover of Ministerial duties between Dato' Shaziman Abu Mansor and Dato' Seri Utama Dr Rais Yatim as the new Minister of Information Communications and Culture, Putrajaya

8 **18 APR**
Launching of Community Broadband Centre (CBC) Melekek, Melaka

9 **30 APR**
SKMM 10th Anniversary Lecture Series Dinner, Kuala Lumpur

10 **5 MAY**
YB Dato' Seri Utama Dr Rais Yatim inaugural visit to SKMM, Cyberjaya

11 **17 MAY**
World Telecommunication and Information Society Day 2009, campaign on Protecting Children in Cyber Space, Nationwide

12 **19 MAY**
Communications and Multimedia (C&M) Conference "New Era of Cross Industry", Cyberjaya

13 **22 MAY**
Malam Jasamu di Kenang - YBhg. Datuk Dr Halim Shafie, outgoing Chairman of SKMM, Kuala Lumpur

14 **27 JUN**
Senam Seni 1Malaysia at Dataran Merdeka, Kuala Lumpur

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15 **2 JUL**
Seminar on React of The Economic Downturn To The Domestic Express Industry: The Impact & Opportunities, Cyberjaya

16 **3 JUL**
YB Datuk Joseph Salang visit to Julau, Sarawak

17 **25 JUL**
CBC Open Day / Broadband Awareness Talk, Bandar Pusat Jengka, Pahang

18 **4 AUG**
MSC Pahang Launch, Kuantan, Pahang

19 **11 AUG**
Seminar on Telecommunications Standards & Practice, Cyberjaya

20 **15 AUG**
Seminar Maritime Frequency and Private Networks in Sandakan, Sabah

21 **13 - 14 AUG**
IDA Singapore – SKMM Bilateral Exchange Treasure Hunt activity, Melaka

22 **5 - 9 OCT**
ITU Telecom World in Geneva, Switzerland

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23 **8 OCT**
Launching of 'Generasi Digital' campaign in Port Dickson, Negeri Sembilan

24 **18 OCT**
SKMM Exhibition at the KPKK Exhibition on 1Malaysia, Ipoh, Perak

25 **21 OCT**
Welcoming ceremony for Tan Sri Khalid Ramli as the new Chairman of SKMM, Cyberjaya

26 **23 OCT**
GoMobile 2009 - The Ultimate Mobile Lifestyle Event of the Year, Kuala Lumpur

27 **1 - 7 DEC**
ASEAN Cyberkids Camp 2009, Kuala Lumpur

28 **2 DEC**
The Broadband Push to Rural Communities - Award Ceremony for the successful Universal Service Providers Tenderers, Cyberjaya

29 **28 DEC**
Launching of MyIX and Community Broadband Centre, Kota Kinabalu, Sabah

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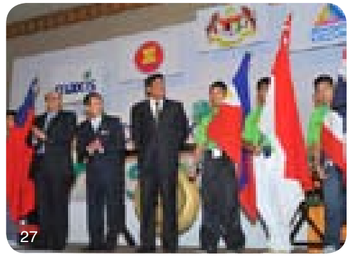
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ICTs have been instrumental in paving the way for a better future, increasing dictating lifestyles and behaviour patterns, contributing to the growth of trade and commerce, improving governance and municipal services, and revolutionising entertainment through the development of rapid communications.

12

Governance and Audited Financial Statements

GOVERNANCE AND AUDITED FINANCIAL STATEMENTS

SKMM considers governance as fundamental to its operations as its actions and decisions would have a significant impact on the stakeholders. The principles of good governance is ingrained in the Malaysian Communications and Multimedia Commission Act 1998 (MCMA) as well as the Communication and Multimedia Act 1998 (CMA). where the powers and functions of SKMM are defined. SKMM, primarily, is required to play a dual role, as an industry developer and industry regulator. As an industry developer, it recommends regulatory policies and implements policy decisions contained in the legislations and Ministerial Directions provided for under the CMA.

The CMA establishes the framework for regulating the communications and multimedia sector. A significant feature of the CMA is the identification of the Government's national policy objectives (NPO) for the communications and multimedia sector. The 10 national policy objectives provide the basis and rationale for policy formulation and regulatory intervention. The communications and multimedia sector is a constantly evolving sector, dictated by technology changes and the NPO gives the direction for the communications and multimedia industry.

SKMM is committed to transparency and public disclosure within the confidential boundary stipulated under the MCMCA and CMA. The principle of transparency which underpins good corporate governance is very much a significant feature of the regulatory framework in the CMA. The principle of openness is clearly embedded in the CMA wherein SKMM has the obligation to carry out public inquiry and consultations with the stakeholders on matters of significant interests to the public or licensees. A public inquiry may be launched by SKMM on its own initiative, or by a request from a person. Alternatively, the Minister may direct SKMM to conduct a public inquiry. A public inquiry will generally involve the Commission's announcement of the inquiry and call for submissions in respect to the matters being examined. SKMM then may report and make a determination on any matter specified in the CMA after the minimum 45 days of consultation period.

The principle of transparency is also reflected in the provision pertaining to the maintenance of registers. SKMM has the obligation under the CMA to maintain registers in both the physical and electronic forms. The matters that are required to be registered include Ministerial Directions, Ministerial Declarations, Ministerial Determinations, Commission Directions, Commission Determinations, licenses issued and spectrum assigned to licensees.

Another feature of transparency which is uniquely provided for in the CMA is the requirement for SKMM to provide a written statement of reasons if requested by the licensees in cases where SKMM exercised its powers which has a mandatory effect of compliance through the issuance of Commission Directions on specific licensees.

The sound governance mechanism provided in the CMA is aimed to give confidence to the stakeholders in the decisions made by SKMM and ensure that they have a full understanding of the way SKMM implements Government policies and how these would contribute to industry growth and consumer protection.

As a statutory body, SKMM is accountable for the public funds that it maintains and the expenditure that it incurs for the performance of its statutory duties. It is a requirement under SKMM for the audited financial statements of the Commission together with a report dealing with the activities of the Commission for each preceding financial year to be tabled to the Parliament. This is done through submission of the annual report of SKMM to the Minister in charge who shall cause the annual report to be laid before both Houses of Parliament.

Based on SKMM's given role, the need to maintain its operational independence and protect its reputation, SKMM subscribes to three basic values, namely authoritativeness, integrity and competence (AIC).

On the administrative side, the Management has established processes, structures as well as developed Clients' Charters and organisation-wide Integrity Plan as tools to facilitate the performance of its duties, decision-making, instituting control and being accountable for the outcome that it has set out to achieve.

Governance Structure

The Commission consists of nine members appointed by the Minister as follows:

a) a Chairman;
b) three members representing the Government; and
c) not less than two but not more than five other members.

The Commission is chaired by YBhg. Tan Sri Khalid Ramli and its detailed composition is published in pages 15 to 23. By virtue of section 20 of the MCMCA, the Chairman of the Commission is also the Chief Executive. The Commission meets at least once a month.

The Commission has oversight over the fulfilment of SKMM's general duties and specific statutory responsibilities as specified under the MCMCA and CMA while the Chairman who is also Chief Executive is responsible for the overall administration, management of the functions and the day to day affairs and have general control of the employees of the Commission. In discharging his duties, the Chief Executive acts under the general authority and directions of the Commission. He chairs the Executive Committee which comprised the senior management team responsible for the operations and management of the strategy and overall direction of the organization. The Executive Committee meets on a weekly basis.

Meetings

In 2009, the Members of the Commission met 14 times, 10 of which were the monthly meetings and four special meetings.

During the year in review, in addition to the above governance activities, regular briefings were conducted to the Minister of Information, Communication and Culture to present the Commission's views on issues and challenges confronting the communications and multimedia industry in Malaysia, and to discuss the implementations of various policy recommendations.

In fulfilling its duties as a statutory authority, the Commission, whenever required provides briefings to the Members of Parliament.

Committees of the Commission

As provided under section 15 of the SKMMA, the Commission established the following committees to assist the Commission in the performance of its functions.

Audit Committee

The Audit Committee comprises three members of the Commission. During the year in review, the Audit Committee was chaired by YBhg. Datuk Dr. Abdul Samad Hj. Alias and the two other Members were YBhg. Tan Sri C. Rajandram and YBhg. Dato' Mohd. Zain Mohd. Dom.

The Audit Committee's primary function is to assist the Commission in fulfilling its responsibilities with respect to:

a) approval of the audited Statement of Accounts of the Commission which shall include a balance sheet and an account of income and expenditure of SKMM Fund and USP Fund for that financial year;
b) oversight in respect of the adequacy of the system of internal control that management has established; and
c) oversight of the internal and external audit processes.

The Audit Committee is granted with the authority to investigate any matter or activity involving financial accounting and financial reporting, as well as the internal control of the Commission. In this regard, the Committee will have the authority to approve the retention of external professionals to render advice and counsel in such matters.

During the year in review, the Audit Committee met three times.

Human Resource Committee

During the year in review, the Human Resource Committee met once to deliberate on the payment of bonus for 2008 and annual salary increment for 2009 for the approval of the Members of the Commission.

The Human Resource Committee consists of the following members:

Chairman:
Datuk Wira Kamaruddin Siaraf

Members:
- Chairman of the Commission
- A member of the Commission

Networked Content Development Grant Management Committee

The NMC is authorised by the Commission to consider and approve the recommendations by the Networked Content Development Grant Business Technical Committee (NBTC) for award of the grants to the successful applicants. In 2009, the NMC met three times and deliberated on the recommendations of the NBTC. Three applications for grants were approved in 2009, the details of which are elaborated in the section on content development activities.

The Networked Content Development Grant Management Committee (NMC) consists of the following members:

Chairman:
Datuk Wira Kamaruddin Siaraf

Members:
- Datuk Mohd. Zain Mohd. Dom
- Director General of FINAS
- Dato' Dr. Gan Khuan Poh
- Senior Director, Monitoring and Enforcement Division
- Senior Director, MyICMS Division

Stamp Advisory Committee

The Stamp Advisory Committee of SKMM is entrusted with the responsibility to consider and recommend the annual stamp themes and the number of themes appropriate to be issued in the year for the Minister's approval.

The Stamp Advisory Committee consists of the following members:

Chairman:
Chairman of the Commission

Members:
- Representative of the Ministry of Information Communications and Culture
- Director General of Museum Department
- Director General of Balai Seni Lukis Negara
- President of the Philatelic Association of Malaysia
- CEO of Pos Malaysia Bhd. or nominated senior official as alternate
- Representative from Artists Association of Malaysia

In 2009, the Stamp Advisory Committee met once and approved 18 stamp themes. The detailed list of the stamp themes issued in 2009 is as reported in the Postal section of the Annual Report.

Universal Service Provision Fund Committee

The Universal Service Provision (USP) Fund Committee met once in 2009 and approved the claims for USP projects rollout disbursement from the USP Fund. In addition, the USP Fund Committee approved the Notification For Contribution to The Universal Service Provision (USP) Fund For Year 2007 (Batch 6) & Year 2008 (Batch 2) besides endorsing the revised Standard Operating Procedures Manual for the management of the USP Fund.

The USP Fund Committee consists of the following members:

Chairman:
Dato' Dr. Gan Khuan Poh

Members:
- Datuk Idris Abdullah
- Dato' Mohamed Sharil Tarmizi
- Representative from the Ministry of Information Communications and Culture

Governance Committee

The Governance Committee is a newly established committee by the Members of the Commission pursuant to section 15 of the SKMMA. The Governance Committee came into effect on 10 August 2009. The Terms of Reference of the Governance Committee includes facilitating the Members of the Commission in the establishment of a Corporate Governance Framework and the following:

- advise the Members of the Commission in relation to their duties on corporate governance oversight;
- facilitate the Members of the Commission in evaluating the board and the commission committees performance, operations and effectiveness;
- recommend the nomination of Members of the Commission as appropriate including succession planning of the Members of the Commission; and
- recommend to the Members of the Commission to publish reports on governance if it is deemed expedient to do so.

Chairman:
Datuk Dr. Abdul Samad b. Hj. Alias (until 30 September 2009)

Members:
- Datuk Mohd. Zain Mohd. Dom
- Dato' Dr. Gan Khuan Poh
- Datuk Idris Abdullah

Ministerial Direction

Currently, the Commission committees are being reviewed pursuant to the direction of the Minister of Information Communications and Culture issued on 9 September 2009.

Malaysian Communications and Multimedia Commission

Financial Statements for the Year Ended 31 December 2009

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198 Statutory declaration

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Balance sheet as at 31 December 2009

	Note	2009 RM'000	2008 RM'000
Assets			
Property, plant and equipment	3	110,000	135,533
Current assets			
Fees and other receivables	4	27,178	29,006
Current tax asset		320	-
Cash and cash equivalents	5	1,462,574	1,173,278
Total current assets		1,490,072	1,202,284
Total assets		1,600,072	1,337,817
Represented by:			
Accumulated fund	6	1,228,407	1,091,364
Liabilities			
Non-current liability			
Deferred income	7	113,956	129,310
Current liabilities			
Deferred income	7	229,267	69,735
Other payables and accrued expense	8	28,442	45,662
Provision for taxation		-	1,234
Federal consolidated fund	9	-	512
Total current liabilities		257,709	117,143
Total liabilities		371,665	246,453
Total equity and liabilities		1,600,072	1,337,817

The notes on pages 184 to 196 are an integral part of these financial statements.

Income and expenditure statement for the year ended 31 December 2009

	Note	2009 RM'000	2008 RM'000
Income			
Operating license fees		89,193	77,788
Spectrum fees		250,633	220,071
Interest income		35,921	39,074
Gain on disposal of property, plant and equipment		112	99
Reversal of allowance for doubtful debts		240	215
Other income		8,696	3,400
		384,795	340,647
Expenditure			
Human resource expenses		39,955	33,353
Administrative expenses		42,346	34,734
Audit fee		44	42
Rental expenses			
- premises		934	739
- network		816	863
- others		474	385
Depreciation of property, plant and equipment		33,344	25,542
Allowance for doubtful debts		885	1,332
Others		3,493	3,635
		122,291	100,625
Excess of income over expenditure before tax		262,504	240,022
Tax expense	10	(8,981)	(10,223)
Excess of income over expenditure after tax		253,523	229,799

The notes on pages 184 to 196 are an integral part of these financial statements.

Statement of total recognised gains and losses for the year ended 31 December 2009

The Commission's Members have not recognised gains and losses other than the net surplus for the current financial year and the previous financial year.

The notes on pages 184 to 196 are an integral part of these financial statements.

Cash flow statement for the year ended 31 December 2009

	2009 RM'000	2008 RM'000
Cash flows from operating activities		
Excess of income over expenditure before tax	262,504	240,022
Adjustments for:		
Depreciation of property, plant and equipment	33,344	25,542
Gain on disposal of plant and equipment	(111)	(99)
Interest income	(35,921)	(39,074)
Operating surplus before changes in working capital	259,816	226,391
Changes in working capital:		
Deferred income	144,178	11,624
Fees and other receivables	(2,950)	15,593
Federal consolidated fund	(512)	(603)
Other payables and accrued expenses	(17,220)	15,447
Cash generated from operations	383,312	268,452
Tax paid	(10,535)	(9,037)
Net cash from operating activities	372,777	259,415
Cash flows from investing activities		
Acquisition of plant and equipment	(7,956)	(56,948)
Interest received	40,699	35,044
Proceeds from disposal of plant and equipment	256	99
Net cash from/(used in) investing activities	32,999	(21,805)
Cash flows from financing activities		
Contribution to the Sarawak Rural Broadband Initiative Project	-	(10,000)
Payment to the consolidated trust fund	(116,480)	(45,000)
Net cash used in financing activities	(116,480)	(55,000)
Net increase in cash and cash equivalents	289,296	182,610
Cash and cash equivalents at 1 January	1,173,278	990,668
Cash and cash equivalents at 31 December	1,462,574	1,173,278

The notes on pages 184 to 196 are an integral part of these financial statements.

Principal activities

The principal activities of the Malaysian Communications and Multimedia Commission are to implement and to enforce the provisions of the communications and multimedia laws as stipulated in the Communications and Multimedia Act (CMA) 1998 and the Malaysian Communications and Multimedia Commission Act (MCMCA) 1998.

The address of the principal place of business is as follow:
Principal place of business
63000 Cyberjaya
Selangor Darul Ehsan

The financial statements were approved by the Commission's Members on 29 July 2010.

1. Basis of preparation

(a) Statement of compliance

These financial statements have been prepared in accordance with Financial Reporting Standards (FRS) and accounting principles generally accepted in Malaysia.

The Commission has not applied the following accounting standards, amendments and interpretations that have been issued by the Malaysian Accounting Standards Board (MASB) but are not yet effective for the Commission:

FRSs, Interpretations and amendments effective for annual periods beginning on or after 1 July 2009

- FRS 8, *Operating Segments*

FRSs, Interpretations and amendments effective for annual periods beginning on or after 1 January 2010

- FRS 4, *Insurance Contracts*
- FRS 7, *Financial Instruments: Disclosures*
- FRS 101, *Presentation of Financial Statements (revised)*
- FRS 123, *Borrowing Costs (revised)*
- FRS 139, *Financial Instruments: Recognition and Measurement*
- Amendments to FRS 1, *First-time Adoption of Financial Reporting Standards*
- Amendments to FRS 2, *Share-based Payment: Vesting Conditions and Cancellations*
- Amendments to FRS7, *Financial Instruments: Disclosures*
- Amendments to FRS101, *Presentation of Financial Statements – Puttable Financial Instruments and Obligations Arising on Liquidation*
- Amendments to FRS127, *Consolidated and Separate Financial Statements; Cost of Investment of a Subsidiary, Jointly Controlled Entity or Associate*
- Amendments to FRS 132, *Financial Instruments: Presentation*
  - *Puttable Financial Instruments and Obligation Arising on Liquidation*
  - *Separation of Compound instrument*
- Amendments to FRS 139, *Financial Instruments: Recognition and Measurement,*
  - *Reclassification of Financial Assets*
  - *Collective Assessment of Impairment for Banking Institutions*

1. Basis of preparation (continued)

(a) Statement of compliance (continued)

FRSs, Interpretations and amendments effective for annual periods beginning on or after 1 January 2010 (continued)

- Improvements to FRSs (2009)
- IC Interpretation 9, *Reassessment of Embedded Derivatives*
- IC Interpretation 10, *Interim Financial Reporting and Impairment*
- IC Interpretation 11, *FRS 2 - Group and Treasury Share Transactions*
- IC Interpretation 13, *Customer Loyalty Programmes*
- IC Interpretation 14, FRS 119 - *The Limit on a Defined Benefit Asset, Minimum Funding Requirements and Their Interaction*

FRSs, Interpretations and amendments effective for annual periods beginning on or after 1 March 2010

- Amendments to FRS 132, Financial Instruments: Presentation – Classification of Rights Issues

FRSs, Interpretations and amendments effective for annual periods beginning on or after 1 July 2010

- FRS 1, *First-time Adoption of Financial Reporting Standards* (revised)
- FRS 3, *Business Combinations* (revised)
- FRS 127, *Consolidated and Separate Financial Statements* (revised)
- Amendments to FRS 2, *Share-based Payment*
- Amendments to FRS 5, *Non-current Assets Held for Sale and Discontinued Operations*
- Amendments to FRS 138, *Intangible Assets*
- IC Interpretation 12, *Service Concession Agreements*
- IC Interpretation 15, *Agreements for the Construction of Real Estate*
- IC Interpretation 16, *Hedges of a Net Investment in a Foreign Operation*
- IC Interpretation 17, *Distribution of Non-cash Assets to Owners*
- Amendments to IC Interpretation 9, *Reassessment of Embedded Derivatives*

FRSs, Interpretations and amendments effective for annual periods beginning on or after 1 January 2011

- Amendments to FRS 1, *First-time Adoption of Financial Reporting Standards – Limited Exemption from Comparative FRS 7 Disclosures for First – Time Adopters*
- Amendments to FRS 7, *Financial Instruments Disclosures – Improving Disclosures about Financial Instruments*

The Commission plans to apply the abovementioned standards, amendments and interpretations:

- from the annual period beginning 1 January 2010 for those standards, amendments or interpretations that will be effective for annual periods beginning on or after 1 July 2009 or 1 January 2010, except for:
  - FRS 4, *Insurance Contracts*
  - Amendments to FRS127, Consolidated and Separate Financial Statements; Cost of Investment of a Subsidiary, Jointly Controlled Entity or Associate
  - Amendments to FRS 2, *Share-based Payment*
  - Amendments to FRS 132, Financial Instruments: Presentation
    - *Puttable Financial Instruments and Obligation Arising on Liquidation*
    - *Separation of Compound Instrument*

1. Basis of preparation (continued)

(a) Statement of compliance (continued)

- Amendments to FRS 139, Financial Instruments: Recognition and Measurement,
  • *Collective Assessment of Impairment for Banking Institutions*
- IC Interpretation 9, *Reassessment of Embedded Derivatives*
- IC Interpretation 10, Interim Financial Reporting and Impairment
- IC Interpretation 11, FRS 2 - Group and Treasury Share Transactions
- IC Interpretation 13, Customer Loyalty Programmes
- IC Interpretation 14, FRS 119 - The Limit on a Defined Benefit Asset, Minimum Funding Requirements and Their Interaction

which are not applicable to the Commission.

- from the annual period beginning 1 January 2011 for those standards, amendments or interpretations that will be effective for annual periods beginning on or after 1 July 2010, except for:
  - FRS 3, Business Combinations (revised)
  - FRS 127, Consolidated and Separate Financial Statements (revised)
  - Amendments to FRS 2, *Share-based Payment*
  - Amendments to FRS 5, Non-current Assets Held for Sale and Discontinued Operations
  - IC Interpretation 12, Service Concession Agreements
  - IC Interpretation 15, Agreements for the Construction of Real Estate
  - IC Interpretation 16, Hedges of a Net Investment in a Foreign Operation
  - IC Interpretation 17, Distribution of Non-cash Assets to Owners
  - Amendments to IC Interpretation 9, *Reassessment of Embedded Derivative* which are not applicable to the Commission.

The initial application of a standard, an amendment or an interpretation, which will be applied prospectively, is not expected to have any financial impacts to the current and prior periods financial statements upon their first adoption.

The impacts and disclosures as required by FRS 108.30(b), *Accounting Policies, Changes in Accounting Estimates and Errors*, in respect of applying FRS 7 and FRS 139 are not disclosed by virtue of the exemptions given in these respective FRSs.

(b) Basis of measurement

The financial statements have been prepared on the historical cost basis.

(c) Functional and presentation currency

These financial statements are presented in Ringgit Malaysia (RM), which is the Commission's functional currency. All financial information presented in RM has been rounded to the nearest thousand, unless otherwise stated.

(d) Use of estimates and judgements

The preparation of financial statements requires management to make judgements, estimates and assumptions that affect the application of accounting policies and the reported amounts of assets, liabilities, income and expenses. Actual results may differ from these estimates.

1. Basis of preparation (continued)

(d) Use of estimates and judgements (continued)

Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognised in the period in which the estimate is revised and in any future periods affected.

There are no significant areas of estimation uncertainty and critical judgements in applying accounting policies that have significant effect on the amounts recognised in the financial statements other than those disclosed in the following notes:
• *Note 4 - allowance for doubtful debts*

2. Significant accounting policies

The accounting policies set out below have been applied consistently to the periods presented in these financial statements, and have been applied consistently by the Commission.

(a) Property, plant and equipment

(i) Recognition and measurement

Items of property, plant and equipment are stated at cost less any accumulated depreciation and any accumulated impairment losses.

Cost includes expenditures that are directly attributable to the acquisition of the asset and any other costs directly attributable to bringing the asset to working condition for its intended use, and the costs of dismantling and removing the items and restoring the site on which they are located. The cost of self-constructed assets also includes the cost of materials and direct labour. Purchased software that is integral to the functionality of the related equipment is capitalised as part of that equipment.

When significant parts of an item of property, plant and equipment have different useful lives, they are accounted for as separate items (major components) of property, plant and equipment.

Gains and losses on disposal of an item of property, plant and equipment are determined by comparing the proceeds from disposal with the carrying amount of property, plant and equipment and are recognised net within "other income" or "other operating expenses" respectively in the income and expenditure statement.

(ii) Subsequent costs

The cost of replacing part of an item of property, plant and equipment is recognised in the carrying amount of the item if it is probable that the future economic benefits embodied within the part will flow to the Commission and its cost can be measured reliably. The carrying amount of the replaced part is derecognised. The costs of the day-to-day servicing of property, plant and equipment are recognised in the income and expenditure statement as incurred.

(iii) Depreciation

Depreciation is recognised in the income and expenditure statement on a straight-line basis over the estimated useful lives of each part of an item of property, plant and equipment. Freehold land is not depreciated. Property, plant and equipment under construction are not depreciated until the assets are ready for their intended use.

2. Significant accounting policies (continued)

(a) Property, plant and equipment (continued)

(iii) Depreciation (continued)

The estimated useful lives for the current and comparative periods are as follows:

• Office and communication equipment	6 – 7 years
• Computer equipment	3 – 5 years
• Furniture and fittings	6 – 7 years
• Motor vehicles	5 years
• Building	50 years

Depreciation methods, useful lives and residual values are reassessed at the balance sheet date.

(b) Fees and other receivables

Fees and other receivables are initially recognised at their cost when the contractual right to receive cash or another financial asset from another entity is established.

Subsequent to initial recognition, receivables are stated at cost less allowance for doubtful debts.

Receivables are not held for the purpose of trading.

(c) Cash and cash equivalents

Cash and cash equivalents consist of cash on hand, balances and deposits with banks and highly liquid investments which have an insignificant risk of changes in value.

(d) Provisions

A provision is recognised when it is probable that an outflow of resources embodying economic benefits will be required to settle a present obligation (legal or constructive) as a result of a past event and a reliable estimate can be made of the amount.

(e) Payables

Payables are measured initially and subsequently at cost. Payables are recognised when there is a contractual obligation to deliver cash or another financial asset to another entity.

(f) Impairment of assets

The carrying amounts of assets except for financial assets are reviewed at each reporting date to determine whether there is any indication of impairment. If any such indication exists, then the asset's recoverable amount is estimated.

The recoverable amount of an asset or cash-generating unit is the greater of its value in use and its fair value less cost to sell. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. For the purpose of impairment testing, assets are grouped together into the smallest group of assets that generates cash inflows from continuing use that are largely independent of the cash inflows of other assets or groups of assets (the "cash generating units").

2. Significant accounting policies (continued)

(f) Impairment of assets (continued)

An impairment loss is recognised if the carrying amount of an asset or its cash-generating unit exceeds its recoverable amount. Impairment losses are recognised in the income and expenditure statement.

Impairment losses recognised in prior periods are assessed at each reporting date for any indications that the loss has decreased or no longer exists. An impairment loss is reversed if there has been a change in the estimates used to determine the recoverable amount. An impairment loss is reversed only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortisation, if no impairment loss had been recognised. Reversals of impairment losses are credited to the income and expenditure statement in the year in which the reversals are recognised.

(g) Tax expense

Tax expense is in respect of tax on interest income received during the financial year. All other income is exempted from taxation as the Commission is tax exempt under Section 127(3) of the Income Tax, 1967.

Tax expense comprises current and deferred tax. Tax expense is recognised in the income and expenditure statement except to the extent that it relates to items recognised directly in equity, in which case it is recognised in equity.

Current tax is the expected tax payable on the taxable income for the year, using tax rates enacted or substantively enacted at the balance sheet date, and any adjustment to tax payable in respect of previous years.

Deferred tax is recognised using the balance sheet method, providing for temporary differences between the carrying amounts of assets and liabilities for reporting purposes and the amounts used for taxation purposes. Deferred tax is not recognised for temporary differences that affects neither accounting nor taxable profit (tax loss). Deferred tax is measured at the tax rates that are expected to be applied to the temporary differences when they reverse, based on the laws that have been enacted or substantively enacted by the balance sheet date.

Deferred tax liability is recognised for all taxable temporary differences.

A deferred tax asset is recognised to the extent that it is probable that future taxable profits will be available against which temporary difference can be utilised. Deferred tax assets are reviewed at each reporting date and are reduced to the extent that it is no longer probable that the related tax benefit will be realised.

(h) Foreign currency transactions

Transactions in foreign currencies are translated to the respective functional currency of the Commission at exchange rates at the dates of the transaction.

Monetary assets and liabilities denominated in foreign currencies at the balance sheet date are retranslated to the functional currency at the exchange rate at that date. Non-monetary assets and liabilities denominated in foreign currencies that are measured at fair value are retranslated to the functional currency at the exchange rate at the date that the fair value was determined. Foreign currency differences arising on retranslation are recognised in the income and expenditure statement.

2. Significant accounting policies (continued)

(i) Recognition of income

(i) Operating license fees

Operating license fees are recognised on the following basis:-

a) a minimum RM50,000 or a maximum license fees of 0.50% of Gross Annual Turnover is recognised on an accrual basis upon the anniversary of the license and annually thereafter.

b) the difference between the minimum and the maximum refers to maximum rebates of 0.35% given to licensees only upon meeting the criteria set and approved by the Commission.

(ii) Spectrum fees

Spectrum fees consist of apparatus and spectrum assignment fees. Renewal notifications are sent to the assignment holders before the expiry of the assignment. Upon receiving the notification, the assignment holders are required to make a fresh application for new assignment. Spectrum fees are recognised on accrual basis over the licensee periods granted.

(iii) Interest income

Interest income is recognised in the income and expenditure statement as it accrues, taking into account the effective yield on the asset.

(j) Employee benefits

Short term employee benefits

Short-term employee benefit obligations in respect of salaries, annual bonuses, paid annual leave and sick leave are measured on an undiscounted basis and are expensed as the related service is provided.

A provision is recognised for the amount expected to be paid under short-term cash bonus if the Commission has a present legal or constructive obligation to pay this amount as a result of past service provided by the employee and the obligation can be estimated reliably.

The Commission's contributions to statutory pension funds are charged to the income and expenditure statement in the year to which they relate. Once the contributions have been paid, the Commission has no further payment obligations.

3. Property, plants and equipment

	Office and communication equipment RM'000	Computer equipment RM'000	Furniture and fittings RM'000	Motor vehicles RM'000	Freehold land RM'000	Building RM'000	Capital work-in-progress RM'000	Total RM'000
Cost								
At 1 January 2008	4,971	48,128	2,967	5,636	10,873	36,729	50,652	159,956
Additions	355	49,493	291	1,133	-	-	5,676	56,948
Disposals	-	-	-	(444)	-	-	-	(444)
Reclassification	-	56,118	-	-	-	-	(56,118)	-
At 31 December 2008 / 1 January 2009	5,326	153,739	3,258	6,325	10,873	36,729	210	216,460
Additions	686	4,612	303	811	-	-	1,544	7,956
Disposals	(1)	(22)	-	(312)	-	-	-	(335)
At 31 December 2009	6,011	158,329	3,561	6,824	10,873	36,729	1,754	224,081
Accumulated depreciation								
At 1 January 2008	2,484	46,290	1,356	3,250	-	2,449	-	55,829
Charge for the year	728	22,864	458	757	-	735	-	25,542
Disposals	-	-	-	(444)	-	-	-	(444)
At 31 December 2008 / 1 January 2009	3,212	69,154	1,814	3,563	-	3,184	-	80,927
Charge for the year	780	30,485	474	871	-	734	-	33,344
Disposals	(1)	(17)	-	(172)	-	-	-	(190)
At 31 December 2009	3,991	99,622	2,288	4,262	-	3,918	-	114,081
Net book value								
At 31 December 2007	2,487	1,838	1,611	2,386	10,873	34,280	50,652	104,127
At 31 December 2008 / 1 January 2009	2,114	84,585	1,444	2,762	10,873	33,545	210	135,533
At 31 December 2009	2,020	58,707	1,273	2,562	10,873	32,811	1,754	110,000

4. Fees and other receivables

	2009 RM'000	2008 RM'000
Fees receivables	9,944	8,684
Less: Allowance for doubtful debts	(6,579)	(5,933)
	3,365	2,751
Interest income receivables	20,550	25,328
Advances to staff	189	154
Other deposits	433	387
Other receivables	2,188	76
Staff loans	453	310
	27,178	29,006

5. Cash and cash equivalents

	2009 RM'000	2008 RM'000
Cash and bank balances	6,840	1,017
Deposits placed with licensed banks	1,455,734	1,172,261
	1,462,574	1,173,278

6. Accumulated fund

	2009 RM'000	2008 RM'000
Initial fund	60,000	60,000
Accumulated surplus brought forward	1,031,364	856,565
Payments made to the consolidated trust fund	(116,480)	(45,000)
Contribution to the Sarawak Rural Broadband Initiative Project	-	(10,000)
	914,884	801,565
Excess of income over expenditure after tax	253,523	229,799
Accumulated surplus carried forward	1,228,407	1,091,364

The initial fund has been utilised to finance the working capital of the Commission.

7. Deferred income

	2009 RM'000	2008 RM'000
Current		
Spectrum fees		
3G spectrum assignment fees	22,839	21,506
Apparatus assignment fees	205,798	47,540
Operating license fees		
Class license fees	629	589
Individual license fees	-	100
Courier license fees	1	-
	229,267	69,735
Non-current		
Spectrum fees		
3G spectrum assignment fees	113,339	128,794
Apparatus assignment fees	617	516
	113,956	129,310

Deferred income relates to the amount of unearned income from advance payment by licensees for future financial period's.

8. Other payables and accrued expense

	2009 RM'000	2008 RM'000
Other payables	8,095	8,588
Accrued expenses	20,347	37,074
	28,442	45,662

9. Federal consolidated fund

Compounds paid by offenders to the Commission due to non-compliance with the Communications and Multimedia Act 1998 or its regulations and is payable to the Federal Consolidated Fund.

10. Tax expense

	2009 RM'000	2008 RM'000
Income tax expense		
- current year	8,981	10,159
- prior year	-	64
	8,981	10,223

Reconciliation of tax expense

Excess of income over expenditure before taxation	262,504	240,022
Tax at statutory tax rate of 25% (2008: 26%)	65,626	62,406
Tax exempt income	(87,218)	(78,409)
Non-deductible expenses	30,573	26,162
	8,981	10,159
Under provision in prior year	-	64
Tax expense	8,981	10,223

The Commission has been granted tax exemption from Year of Assessment 2000 onwards by the Ministry of Finance under Section 127(3)(b) of the Income Tax Act, 1967. The current tax expense is in respect of interest income not exempted from tax.

11. Key management personnel compensation

The key management personnel compensation is as follow:

	2009 RM'000	2008 RM'000
Commission and Executive Committee members' remuneration	3,760	3,507

12. Capital commitment

	2009 RM'000	2008 RM'000
Property, plant and equipment		
Authorised but not contracted for	24,500	15,000
Contracted but not provided for and payables	1,356	-
	25,856	15,000

13. Related parties

Identity of related parties

For the purposes of these financial statements, parties are considered to be related to the Commission if the Commission has the ability, directly or indirectly, to control the party or exercise significant influence over the party in making financial and operating decisions, or vice versa, or where the Commission and the party are subject to common control or common significant influence. Related parties may be individuals or other entities.

Key management personnel are defined as those persons having authority and responsibility for planning, directing and controlling the activities of the Commission either directly or indirectly. The key management personnel includes all the Members of the Commission, and certain members of senior management of the Commission.

The Commission has a related party relationship with its Members and key management personnel.

Transactions with key management personnel

There are no other transactions with key management personnel other than key management personnel compensation as disclosed in Note 11.

Other related party transactions

There are no significant related party transactions other than those disclosed in Note 11 in the financial statements.

14. Financial instruments

Financial risk management objectives and policies

The Commission's activities are exposed to a variety of financial risks, including liquidity risks, cash flow risks, credit risk and interest rate risk.

14. Financial instruments (continued)

The Commission's overall financial risk management objective is to ascertain, to address and to control the risks to which the Commission is exposed so as to minimise the financial downside risks at reasonable costs.

The Commission Members are primarily responsible for the management of these risks and to formulate policies and procedures for the management thereof. The management regularly reviews and assesses the financial risk management policies to ensure that the policy guidelines are adhered to.

Liquidity risk

The Commission monitors and maintains a level of cash and cash equivalents deemed adequate by management to finance the Commission's operation and to mitigate the effects of fluctuation in cash flows.

Credit risk

Credit risk is the potential exposure of the Commission to losses in the event of non-repayment of license fees from licensees.

At the balance sheet date, there was no significant concentration of credit risk. The maximum exposure to credit risk for the Commission is represented by the carrying amount of each financial asset in the balance sheet.

Interest rate risk

The Commission is exposed to interest rate risk on fixed deposits. The Commission does not transact in any interest rate swaps.

Effective interest rates and repricing analysis

In respect of interest-earning financial assets, the following table indicates their average effective interest rates at the balance sheet date and the periods in which they mature, or if earlier, reprice.

	2009			2008		
	Effective interest rate %	Within 1 year RM'000	1 - 5 years RM'000	Effective interest rate %	Within 1 year RM'000	1 - 5 years RM'000
Fixed rate instruments						
Deposits	2.55	1,455,734	-	3.39	1,154,378	18,900

Fair values

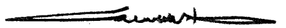
Recognised financial instruments

The carrying amounts of cash and cash equivalents, fees and other receivables and payables approximate fair values due to the relatively short term nature of these financial instruments.

Statement by the Members of the Malaysian Communications and Multimedia Commission

We, **Tan Sri Khalid Ramli** and **Datuk Md Afendi Bin Hamdan**, being two of the Members of the Malaysian Communications and Multimedia Commission, do hereby state that in the opinion of the Members of the Commission, the financial statements set out on pages 180 to 196 are drawn up in accordance with Financial Reporting Standards in Malaysia so as to give a true and fair view of the financial position of the Commission as of 31 December 2009 and of its income and expenditure and cash flows for the year then ended.

On behalf of Members of the Malaysian Communications and Multimedia Commission:



Tan Sri Khalid Ramli
Chairman

Datuk Md Afendi Hamdan
Commission Member

Kuala Lumpur,
Date: 29 July 2010

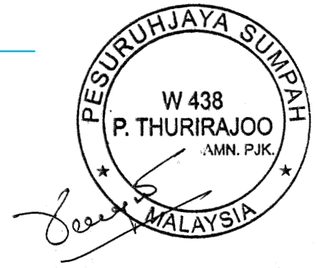
Statutory declaration

I, **Hj Ruzlan Zabidi**, the officer primarily responsible for the financial management of Malaysian Communications and Multimedia Commission, do solemnly and sincerely declare that the financial statements set out on pages 180 to 196 are, to the best of my knowledge and belief, correct and I make this solemn declaration conscientiously believing the same to be true, and by virtue of the provisions of the Statutory Declarations Act, 1960.

Subscribed and solemnly declared by the abovenamed in Kuala Lumpur on 29 July 2010.

Hj Ruzlan Zabidi

Before me:



NO. 656, TINGKAT 2,
BATU 4, JALAN IPOH,
51200 KUALA LUMPUR

Independent auditors' report to the members of Malaysian Communications and Multimedia Commission

We have audited the financial statements of Malaysian Communications and Multimedia Commission (Commission), which comprise the balance sheet as at 31 December 2009, and the income and expenditure statement, statement of total recognised gains and losses and cash flow statement for the year then ended, and a summary of significant accounting policies and other explanatory notes, as set out on pages 180 to 196.

Commission Members' Responsibility for the Financial Statements

The members of the Commission are responsible for the preparation and fair presentation of these financial statements in accordance with Financial Reporting Standards in Malaysia. This responsibility includes: designing, implementing and maintaining internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error; selecting and applying appropriate accounting policies; and making accounting estimates that are reasonable in the circumstances.

Auditors' Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with approved standards on auditing in Malaysia. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on our judgment, including the assessment of risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, we consider internal control relevant to the Commission's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Commission's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by the Commission Members, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements have been properly drawn up in accordance with Financial Reporting Standards in Malaysia so as to give a true and fair view of the financial position of the Commission as of 31 December 2009 and of its financial performance and cash flows for the year then ended.

Other Matters

This report is made solely to the members of the Commission, as a body, in accordance with Section 47(2) of the Malaysian Communications and Multimedia Commission Act 1998 and for no other purpose. We do not assume responsibility to any other person for the content of this report.

KPMG
Firm Number: AF 0758
Chartered Accountants

Ahmad Nasri Abdul Wahab
Approval Number: 2919/03/12(J)
Chartered Accountant

Petaling Jaya,
Date: 29 July 2010