
3. RISK FACTORS

Applicants for the Initial Public Offering Shares should carefully consider, in addition to the other information contained herein, the following (which may not be exhaustive) before applying for the Initial Public Offering Shares.

(a) Stock Market Trading Considerations

Prior to the Initial Public Offering, there was no established trading market for the TIME dotCom shares. No assurance can be given that the offer/issue price will correspond to the price at which TIME dotCom shares will trade on the Main Board of the KLSE upon or subsequent to its listing or that an active trading market for the shares will develop upon completion of the Initial Public Offering, and if developed, that it will be sustained.

Save as disclosed in Section 9.2 under the heading entitled "Moratorium on Sale of Shares" in page 45 of this Prospectus, there is no restriction on TIME dotCom's shareholders to sell shares in the Company. No prediction can be made as to the effect, if any, that future sales of TIME dotCom shares, or the availability of TIME dotCom shares for future sale, will have on the market price of the Company's shares prevailing from time to time. Sales of substantial amounts of TIME dotCom shares in the public market, or the perception that such sales may occur, could adversely affect the prevailing market price of the shares.

(b) Operating Considerations

Given the stage of development of the telecommunications and internet industries in Malaysia, their highly competitive nature and the extent of reliance on advanced technology, the Group is exposed to a number of operating risks. The following risks are common to all operators in the market, although some of them are less applicable to Telekom Malaysia given its present market position:-

Interconnect

Notable amongst these general risks are the ability to interconnect on favourable terms. In order to provide its subscribers access to other telecommunication providers such as Telekom Malaysia, the Group has entered into agreements pursuant to which the Group's fixed line, cellular and payphone networks interconnect with other domestic fixed line and cellular networks. These agreements require the Group to pay access fees to other Malaysian operators based on cost arrangements which are determined by the regulator, and non-cost arrangements which are determined based on agreement with the other telecommunications companies. No assurance can be given that the access fees chargeable will not change to the detriment of the Group.

Competition

The telecommunications industry in Malaysia is highly competitive. At present, there are six (6) basic network and services and five (5) international gateway licences issued by the Government under the Telecommunications Act, 1990 (now repealed). There are also six (6) telecommunication companies licensed to offer mobile telecommunication services and two (2) operators licensed to offer payphone services in Malaysia. While the potential for growth is strong, the existence of a large number of operators has resulted in intense competition and this may prolong the gestation period and affect profitability thereafter. There can be no assurance that the Group will increase its market share or that it will be able to effectively compete with its competitors. However, TIME dotCom believes that it is in a strong position to compete and gain market share as the operator of the only 100% fibre-optic trunk network in Malaysia as well as its debt free position upon its listing.

3. RISK FACTORS *(Cont'd)*

Churn Rate

Customer attrition (commonly referred to in the industry as "churn") results in the loss of future revenue from subscriber whose service is disconnected and the inability to recoup any unrecovered costs incurred in acquiring the subscriber. Churn occurs for several reasons, including involuntary disconnection by the company for non-payment of bills and voluntary disconnection by the subscriber who chooses to switch to a competing service or terminate its service. If the Group's telecommunication business is not able to maintain its churn at a relatively low level, it could have a material adverse effect on its future results of operations.

Price Floor

There is currently a determination by the MCMC which sets a floor on the minimum tariffs for equal access which may be imposed by the telecommunication companies. The floor is currently set at a reduction of not more than 20% of current retail tariffs and is subject to the review by the MCMC. The intention of the price floor is to ensure an orderly transition of the tariffs and to avoid potentially damaging competition for all the telecommunication companies. It does, however, mean that reducing charges as a strategy to gain market share will have limited effectiveness. It is not clear how this will affect the Group in its efforts to gain market share. No assurance can be given that any future determination by the regulatory authorities on the price floor will not adversely affect the Group.

Universal Service Obligation ("USO")

For the period of two (2) years commencing from 1 January 1999, the MCMC has determined that Telekom Malaysia is to be the sole USO provider and all other telecommunication companies are to pay in respect of each of the two years a USO contribution to Telekom Malaysia. Thereafter, the MCMC has yet to set any policies on the USO contribution. The USO cost for the year 1999 was RM300 million and this was borne by all telecommunication companies (including Telekom Malaysia) in proportions which have also been determined. The proportion borne by the Group was 3.1% and this amount was paid by twelve (12) equal monthly instalments to Telekom Malaysia. If the MCMC does not determine the USO cost for the year 2000, the proportion to be borne by the Group could be the same as that of 1999. No assurance can be given as to the amount of future USO contributions nor that there will not be any change to the manner in which USO cost is to be borne in future.

Tariff Rebalancing

A number of foreign jurisdictions showed a trend towards tariff rebalancing. Measures to effect these are to drive the tariffs for each call type to be more reflective of the actual costs in providing the relevant network services associated with each call type.

In Malaysia, the MECM had announced on 31 March 2000 that the Government is reviewing the current tariff structure. However, no policy has been determined yet. Should tariffs be rebalanced by reducing the tariffs for STD and IDD calls whilst increasing the tariffs for local calls without a consequent reduction in interconnect prices to levels more reflective of the cost of providing interconnection services particularly by the incumbent operator, Telekom Malaysia, the Group's revenues and profits may be significantly affected.

Technological obsolescence

The telecommunications industry is subject to rapid and significant changes in technology. The Group faces competition from entities providing other communication technologies and may face threats in the future from technologies being developed or to be developed in the future. The effect of emerging and future technological changes on the viability or competitiveness of the Group's business and network cannot be accurately predicted. Accordingly, there can be no assurance that technologies employed by the Group will not become obsolete or be subject to competition from new technologies in the future.

3. RISK FACTORS (*Cont'd*)

Nevertheless, the technology employed in TIME dotCom Group's network is of the global industry standard and upgradeable following the technology trend.

Payphone Business

There is currently a rising trend in the use of mobile communication services. The prepaid mobile communication services which are marketed or directed at prospective customers who are either casual users of telephone services or who wish to budget their expenditure on the use of telephone services has gained a significant acceptance in the market and is gaining popularity. This trend might significantly affect the revenues of the **payphone** business of the Group. There is at present insufficient data to accurately determine the impact, if any, on the **payphone** business of the Group from the rising trend in use of mobile communication services, particularly the prepaid services.

The CMA 1998 repealed the Telecommunications Act, 1950 and paved the way for the establishment of a new licensing regime. There has been some indication by the MCMC that under the new licensing regime, licences may be issued for the operation of private payphones. The distinction between private and public payphones has not been made entirely clear. A large number of the public payphones installed and operated by the Group are in urban areas, particularly places visited by large numbers of people e.g. shopping complexes, cinemas, hospitals and airports where it has obtained limited period of **wayleave** rights. If the management of these places obtain licences for the operation of private payphones and further refused to renew the **wayleave** rights granted to the Group to operate its payphones, it could significantly reduce the Group's market share in the **payphone** business and materially affect the Group's revenues from the **payphone** business.

Wayleave Rights

For the purposes of expanding its network, the Group will need to secure **wayleave** rights from the appropriate Federal or State or municipal authority where any part of the network is to be installed or established or placed or laid on or above areas or places within the jurisdiction of the said authority. Refusal or delay in granting **wayleave** rights would affect the Group's ability to acquire customers, particularly in high density areas, within the time frames planned by it. This may affect the Group's projected revenue and profitability.

International Traffic

For the period of two (2) years commencing from 1 January 1999, the MCMC has determined that the telecommunication companies must operate Parallel Accounting Rates and observe the Proportionate Return Rule. Parallel Accounting Rates require all the telecommunication companies to charge foreign telecommunication operators carrying international call traffic for termination in Malaysia the same or identical rates. This is to prevent foreign telecommunication operators playing off the local telecommunication companies against each other. The Proportionate Return Rule requires each telecommunication company to accept from foreign telecommunication operators only such proportion of international call traffic in bound to Malaysia as is equal to its market share of outbound international call traffic from Malaysia.

Details of how the Parallel Accounting Rates are to be determined and how the Proportionate Return Rule are to be enforced are yet to be determined. No assurance can be given that a subsequent determination of these matters will not adversely affect the Group.

Others

The telecommunications project will also entail engineering, construction and other normal commercial risks, some of which may be beyond the control of the Group and could materially affect the Group's financial condition and results of operations.

3. RISK FACTORS (Cont'd)

Limited Operating History in Internet Services

TIME dotNet has a limited operating history. There are risks and difficulties frequently encountered by companies in the early stages of development, particularly companies in the new and rapidly evolving internet service markets. These risks and difficulties include TIME dotNet's ability to: -

- Continue to develop and upgrade its technology, including its network infrastructure;
- Maintain and develop strategic relationships with business partners;
- Offer compelling on-line services and content; and
- Promptly address the challenges faced by early stage, rapidly growing companies which do not have an experience or performance base to draw on.

Dependence on continued growth of developing online market

The market for the sale of goods and services over the internet is a new and emerging market. The Group's future revenues are substantially dependent upon the acceptance and use of the internet and other online services as a medium for commerce. Rapid growth in the use of and interest in the Web, the internet and other online services is a recent phenomenon. There can be no assurance that this acceptance and use will continue to develop or that a sufficiently broad base of consumers will adopt, and continue to use, the internet as a medium of commerce. Demand and market acceptance for recently introduced services and products over the internet are subject to a high level of uncertainty, and there exist few proven services and products. For the Group to be successful, consumers must accept and use novel ways of conducting business and exchanging information.

In addition, the internet may not be a viable medium of commerce in the long term for a number of reasons, including potentially inadequate development of the necessary network infrastructure or delayed development of enabling technologies, performance improvements and security measures. Although the internet continues to experience significant growth in the number of users, frequency of use and bandwidth requirements, there can be no assurance that the infrastructure for the internet and other online services will be able to support the demands placed upon them. In addition, the internet or other online services could lose their viability as a medium of commerce due to delays in the development or adoption of new standards and protocols required to handle increased levels of internet or other online service activity, or due to increased governmental regulation. Changes in or insufficient availability of telecommunications services to support the internet or other online services also could result in slower response times and adversely affect usage of the internet and other online services generally.

If use of the internet and other online services does not continue to grow or grows more slowly than expected, if the infrastructure for the internet and other online services does not effectively support the growth that may occur, or if the internet and other online services do not become a viable commercial medium, the Group's business, results of operations and financial position could be materially adversely affected.

However, in the financial forecast and projections, TIME dotNet has not assumed any contribution from consumer-to-consumer transaction income.

(c) Licence Conditions*Review*

The MECM is empowered under the CMA 1998 to periodically review the conditions of the licences issued to all telecommunications companies including TT dotCom, TWSB, TRSB, TSAT and TIME dotNet. On a review of the licences, the MECM has absolute discretion to impose additional terms or change existing terms. The regulatory framework currently does not provide a set criteria or boundaries which limit the scope within which this discretion may

3. RISK FACTORS (Cont'd)

be exercised in relation to licences that have been issued under the now repealed Telecommunications Act, 1950.

License Period

The licences held by the TIME dotCom Group have the following license period:-

Company	Licence	Tenure years	Effective date
TT dotCom	Fibre-Optic Network	20	1 November 1992
	Domestic Operator	20	1 June 1994
	International Gateway	20	1 December 1994
	Internet Service Provider	10	1 June 1998
TWSB	Personal Communications Network	20	24 December 1993
TRSB	Payphone	15	1 January 1989
TSAT	Data Communications	15	31 October 1991
TIME dotNet	Application Service (Class License)	1	4 August 2000 (renewable annually)

When the abovementioned licences expire, each Telco will have to apply for new licences to continue providing telecommunications services. The granting of new licences is entirely at the discretion of the MECM. The terms and conditions of such licences is governed by the CMA 1998 and its subsidiary legislations.

(d) Political and Economic Considerations

Like all other business entities, changes in political, economic and regulatory conditions in Malaysia and elsewhere could materially and adversely affect the financial and business prospects of the TIME dotCom Group. These political, economic and regulatory uncertainties include but not limited to the changes in political leadership, expropriation, nationalisation, re-negotiation or nullification of existing contracts, changes in rates of interest, methods of taxation and currency exchange rules.

(e) Regulatory Considerations

The Group's operations, including the renewal of its telecommunication licences and setting of tariffs, are subject to the jurisdiction of numerous governmental agencies including the MECM and the MCMC. The telecommunications industry is currently regulated under a new regulatory regime. Under the said regime, new policies, rules and laws may be effected and these could present significant risks to the Group. In addition, there can be no assurance that any lax enforcement of regulations by the MCMC will not result in loss of revenue to the Group.

The telecommunications sector in Malaysia is currently governed by a new framework developed pursuant to the CMA 1998. The policy and objective is to promote innovation through increased competition. The Government of Malaysia proposes to open up the application services in the next five (5) years to new players, moving away from regulating the number of market players in this sector. To facilitate this, new policies on tariffs, access to facilities and provision of essential services may be put in place. It is not possible at this juncture to quantify the impact of any such measures or the liberalisation of the communications service sector. Significant pressures may be faced by the Group from increased competition particularly if such competitors are not required to invest in infrastructure or if competition policy is not based on facilities based competition.

3. RISK FACTORS (Cont'd)

(f) Forward looking statements

Certain statements in Section 5 on pages 30 to 34 of this Prospectus are based on historical statistics which may not be reflective of the future results, and others are forward-looking in nature, which may or may not be achieved. Whether such statements ultimately prove to be accurate depends upon a variety of factors that may affect the business and operations of the TIME dotCom Group, and such forward-looking statements also involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance and achievements of the TIME dotCom Group, or industry results, to be materially different from any future results, plans, performances and achievements, expressed or implied, by such prospective statements.

(g) Achievability of Profit and Cashflow Estimates, Forecasts and Projections

The telecommunications industry is characterised by a high rate of technology and market changes which are occurring both on national and global basis. There is no reason to believe the pace of change which has been experienced in this industry will slow down. The Group plans to develop and deploy broadband services in Malaysia. Substantial capital, operating and marketing expenditure is expected to be incurred. The Group's future ability to generate positive cash flows and operating profits will be dependent upon a number of factors, including its ability to attract subscribers to these services, the usage and the level of tariffs, interconnection costs, the Group's ability to control costs in enhancing its network and developing and servicing its subscriber base, and ability to keep up with technological changes. Therefore, while the profit and cashflow estimates, forecasts and projections of TIME dotCom Group have been prepared with due diligence, actual results can differ and potentially, in a material way. **Potential investors should note carefully the bases and assumptions to the profit and cashflow estimates, forecasts and projections as well as the comments by the Auditors in their letters on the consolidated profit and cashflow estimates, forecasts and projections as set out in Section 16, page 174 of this Prospectus.**

It should also be noted that the profit estimate, forecast and projections are based on various assumptions with respect to the levels and timing of revenues, cost, interest rates and various other matters of an operational or financial nature, which assumptions are believed by the Company to be reasonable. These assumptions are nevertheless subject to uncertainties and contingencies. Because of the subjective judgements and inherent uncertainties of estimate, forecast and projections and because events and circumstances may not occur as expected, no assurance can be given that such assumptions and the resultant estimate, forecast and projections will be realised, and actual results may be materially different from that shown.

(h) Future Dividends

The Group's cashflow estimate, forecast and projections set out in Section 16 in page 175 of the Prospectus show that the TIME dotCom Group is in a strong cash surplus position even after providing for capital expenditure. However, the Directors of TIME dotCom have adopted a prudent policy to conserve its cash resources in view of the dynamic nature of the industry. As such, the Directors of TIME currently do not expect to declare dividends until the year ending 31 December 2005, to be paid in 2006. Potential investors should be aware of this position. Nevertheless, the Directors of TIME dotCom will review its dividend policy periodically with a view of paying dividend if that is considered necessary.

(i) Control by TIME

Following the Initial Public Offering, TIME will hold the single largest stake in TIME dotCom. TIME will be able to elect some of the Company's directors and influence the Company, including its business directions, and will have sufficient voting rights to influence the outcome of certain corporate transactions unless it is prevented from exercising its voting rights by law or the relevant regulatory authorities.

3. RISK FACTORS (Cont'd)

(j) 3G Mobile Telecommunications Licence

The Government of Malaysia has todate not announced any policy nor introduced any framework except for discussion paper for industry comments for the issuance of 3G mobile telecommunications licences. It is not presently known when nor the number of such licences nor their terms on which the said licences will be issued. The securing of a 3G mobile telecommunications licence will further enhance the expansion and development of the business of the TIME dotCom Group. The possession of such a licence will secure for the Group the allocation and use of scarce spectrum resources that will facilitate the development and production of multimedia services particularly bandwidth applications that exploit the convergence of various communications media. Though the Group has one of the most sophisticated telecommunications network, there can be no assurance that the Group will be successful in obtaining a 3G mobile telecommunications licence. Failure to secure such a licence may place the TIME dotCom Group at a significant disadvantage to competitors who secure such a licence as the Group's ability to deploy innovative multimedia mobile telecommunications services will be significantly impeded. This may consequently have a significant effect on its revenues and profitability. The Group has also registered its expression of interest with the MECM and MCMC on 11 September 2000 to acquire a licence for 3G mobile network.

(k) Dependence on Suppliers

Currently, TWSB employs the technology of Nokia Networks OY, Motorola Inc and Tecnomen OY on the development of its mobile communications systems and infrastructure. TT dotCom currently utilizes the switching technology which is proprietary to Nokia Networks OY, Perneq Corporation Berhad and Lucent Technologies Sdn. Bhd.. The said companies of the Group are currently dependent on the technical assistance, services and technological resources of the said suppliers. Considerable short term impact may be incurred by the TIME dotCom Group should any of these suppliers' business fail.

(l) Dependence on Skilled Personnel

The telecommunications sector is a growing and fast changing technological sector and the management and operation of telecommunications business requires the employment of highly skilled knowledge workers. In the present climate of high growth in the multimedia, communications and computing industries, there is a significantly high demand for such workers. Increased competition for such workers raises the risks for the TIME dotCom Group in being able to secure the services of such personnel or where secured, of retaining their services for the long term. However, the TIME dotCom Group believes that it is able to offer competitive remuneration packages and other benefits to attract the right personnel.

(m) Foreign Exchange Fluctuations

Almost all of the equipment and technology employed by the TIME dotCom Group in its telecommunications infrastructure is imported from foreign jurisdictions. Significant capital expenditure is therefore incurred and payable in foreign currencies. Should the Malaysian Government remove the RM peg, the Group may be at risk to foreign currency fluctuations when making necessary purchases of equipment and technology.

(n) Potential Health Risks of Portable Cellular Telephones

Media reports have suggested that certain radio frequency emissions from portable cellular telephones might be linked to brain cancer. A perceived health risk associated with portable cellular telephones could adversely affect TWSB's business through reductions in the number of subscribers or the subscriber growth rate or reduce network usage per subscriber. However, the Directors of TIME dotCom are not aware of any scientific evidence actually proving the link between radio frequency emissions from portable cellular telephones and brain cancer.

4. INDUSTRY OVERVIEW

4.1 TELECOMMUNICATIONS INDUSTRY

Introduction

With the privatisation of Jabatan Telekomunikasi Malaysia in January 1987, the Government separated the operating and regulatory functions of the telecommunications industry. Telekom Malaysia was incorporated to take over the operations of telecommunications network (previously owned by Jabatan Telekomunikasi Malaysia). In 1998, MCMC in turn became the Government's regulatory body to oversee the telecommunications industry which functions under the purview of the MECM. The MECM is responsible for planning and formulating the national policy with respect to the telecommunications industry in Malaysia and for licensing telecommunication operators. With that, the industry began its transformation from the classic monopoly-only stage to the more open, deregulated structure we see today. In line with the deregulation of the telecommunications industry, the Government granted a number of licences to the private sector telecommunication operators in an effort to develop the country's telecommunications industry and infrastructure further.

Industry Size

In the fixed line market, there are six (6) operators licensed to offer these services and they are Telekom Malaysia, TT dotCom, Celcom, Maxis, DiGi and Prismanet Sdn. Bhd.. In the international services market, the licensed operators are Telekom Malaysia, TT dotCom, Celcom, Maxis and DiGi. Fiberail Sdn. Bhd. is a licensed network facilities provider.

Among the products that are currently being offered in the fixed line market are fixed lines telephony, leased circuits, ISDN and public payphones. The largest service utilized in the fixed line market is fixed lines telephony.

As at the end of 2000, there were approximately 4.9 million Direct Access lines installed. Telekom Malaysia has the largest market share of the Direct Access service with approximately 96.7% of the lines installed. TT dotCom has the second largest market share with 1.3% of the total Direct Access service installed. The third largest market share of the Direct Access service was Maxis with 1.0% whilst the other fixed line operators (Digi, Celcom and Prismanet Sdn. Bhd.) contributed approximately only 1.0% of the total Direct Access service.

(Source: Management's estimates)

In the cellular sector, there are six (6) operators and they are Telekom Malaysia, Celcom, DiGi, TWSB, Maxis and Mobikom Sdn. Bhd.. The management estimates that as at the end of 2000, there is approximately 3.6 million cellular subscribers in this country. In terms of market share, Celcom and Maxis are ahead of the other four (4) operators.

(Source: Management's estimates)

In the payphone sector, there are two (2) operators and they are Telekom Malaysia and TRSB. The population of payphones in 2000 was approximately 148,000 units with the following breakdown:-

Coin Phone	-	43,000 (29%)
Card Phone	-	15,000 (10%)
Multi-payment Phone	-	90,000 (61%)

(Source: Management's estimates)

4. INDUSTRY OVERVIEW (Cont'd)

No. of payphones	←1996→		←1997→		←1998→		←1999→		←2000→	
TRSB	66,819	49%	69,757	41%	67,401	36%	52,945	32%	45,201	30%
Telekom Malaysia (including Citifon)	69,072	51%	100,851	59%	121,000	64%	110,000	68%	103,000	70%
	135,891	100%	170,608	100%	188,401	100%	162,945	100%	148,201	100%

(Sources: From 1996 to 1997 - Source: Statistics Telecommunications Industry Malaysia 1997
For 1998 to 2000 - Management's estimate)

Industry Life-Cycle and Demand

The net effect of liberalisation in Malaysia is an accelerated growth in demand for telecommunication services. Despite the demand, telephony penetration rate remains low compared to developed countries. The sense of urgency displayed by operators to come on-stream quickly against the background of intensifying competition coupled with advances in technology implies a widening market as a wide range of better quality telecommunication services become available to consumers. This is timely as the country moves forward into the next phase of industrialisation and as trade flows with the rest of the world magnifies.

Fixed Line Market

In fixed line telephony market, its growth has historically outpaced growth in the Malaysian economy. In terms of penetration, the number of telephones per 100 people has grown significantly since 1990. Penetration for fixed line telephony stood at 9.3 per 100 people then (Source: *Seventh Malaysia Plan*) compared to an estimated 22.0 per 100 people by the end of this year (Source: *Management's estimates*). Comparing the penetration rate for fixed line market for other countries such as Hong Kong, Singapore, Taiwan, Japan and Korea, the corresponding penetration rate for Malaysian market indicates vast potential for growth.

The incumbent operator, Telekom Malaysia, remained as the dominant provider of fixed telephone service in Malaysia providing approximately 96.7% share of the fixed line market (Source: *Management's estimates*), even after a number of years of introduced competition. TT dotCom estimates that it is presently providing approximately 1.3% share of the fixed line market. The small market share of telephone lines provided by the new entrants was due to time needed to build their networks from "zero-base" infrastructure. In addition, some operators placed priority in the development of their cellular networks rather than their fixed network.

Given the downturn in economy in 1998 and 1999, the growth in fixed line services has been somewhat dampened compared to earlier projections made in the Seventh Malaysia Plan of 24.7 per 100 people by the end of this year. Penetration for the fixed line services is now expected to grow to 22.0 per 100 people by the end of this year and will increase to 30.0 per 100 people by the end of 2005.

(Source: *Management's estimates*)

Cellular Market

Cellular communications was first introduced in this country about a decade ago. In that period of time, subscriber base has grown from approximately 78,000 in 1990 (Source: *Seventh Malaysian Plan*) to approximately 3.6 million at the end of 2000 (Source: *Management's estimate*). The increasing affluence of the population, competitive environment of the cellular market with six (6) operators which drove handset prices down to affordable level and the convenience and versatility of mobile communications were the principal reasons behind this phenomenal growth in mobile subscriber base.

4. INDUSTRY OVERVIEW (Cont'd)

Growth in the cellular market, like the fixed line market, was dampened by the economic downturn in 1998 and 1999. However, the present cellular market outlook for Malaysia is optimistic in line with the continuing economic recovery and the growing importance of cellular communications for data traffic. Comparing the penetration rate for cellular market for other Asian countries such as Hong Kong, Singapore, Taiwan, Japan and Korea, the corresponding estimated penetration rate for Malaysian market of 16% indicates vast potential for growth.

(Source: Management's estimates)

Penetration for the cellular market is expected to grow to 29% by the end of 2005. *(Source: Management's estimate)* This growth is mainly contributed by the introduction of mobile prepaid services. The growth in pre-paid subscribers is expected to outpace the growth of post-paid subscribers as demand is being increasingly driven by low end users, who tends to prefer the more affordable pre-paid services. The cellular market is nevertheless expected to remain competitive with the presence of six (6) operators.

Payphone Market

During the Sixth Malaysian Plan, total number of public payphones installed increased nearly four (4) folds from over 26,300 units in 1990 to over 102,800 units in 1995. Subsequently, the number of public payphones continued to grow, reaching about 170,000 in 1997, from 136,000 in 1996. *(Source: Statistics Telecommunications Industry Malaysia 1997)*. Currently, it is estimated that there are only about 148,000 payphones in the country. The decrease in numbers is mainly due to consolidation of payphones over the last 4 years, whereby the payphone operators focussed more on high yield areas. At present, there are approximately 45,000 payphones deployed by TRSB either using coins, prepaid cards or credit cards.

In Malaysia, there are about 3 payphones per 100 telephone lines, which is at par with the more developed countries with the ratio of 2 to 3 per 100 lines *(Source: Management's estimates)*. Through TRSB's consolidation exercise over the past 4 years, relocation of payphones from low to high yield areas has enabled TRSB to increase its payphone revenue efficiency. However, with increasing popularity of personal mobile phones, it is expected that the payphone business in general will experience slower growth in the next few years.

Regulatory Framework

The CMA 1998 and its subsidiary legislation are the principal piece of legislation that governs the telecommunications, multimedia and broadcasting industries. The MCMC was established pursuant to the CMA 1998. The MCMC was formed on 1 November 1998 and assumed responsibility for the regulation of the telecommunications, multimedia and broadcasting sectors on 1 April 1999 when CMA 1998 became effective. Simultaneously, effective from this date, the Telecommunications Act 1950 and Broadcasting Act 1988 were repealed.

The primary role of the MCMC is to implement and promote the Government's national policy objectives for the communications and multimedia sector. The MCMC is also charged with overseeing the new regulatory framework for the converging industries of telecommunications, broadcasting and on-line activities.

CMA 1998 stipulates that the MCMC must undertake a policy implementation role, while policy decision-making is vested with the MECM. The MECM may also give policy directions to the MCMC.

The objects of CMA 1998 are to promote national policy objectives, to establish a licensing and regulatory framework in support of the national policy objectives for the communication and multimedia industry; to establish the powers and functions for the MCMC and to establish powers and procedures for the administration of CMA 1998.

4. INDUSTRY OVERVIEW (Cont'd)

The national policy objectives for the communications and multimedia industry are:-

- (a) to establish Malaysia as a major global centre and hub for communications and multimedia information and content services;
- (b) to promote a civil society where information-based services will provide the basis of continuing enhancements to quality of work and life;
- (c) to grow and nurture local information resources and cultural representation that facilitate the national identity and global diversity;
- (d) to regulate for the long-term benefit of the end user;
- (e) to promote a high level of consumer confidence in service delivery from the industry;
- (f) to ensure an equitable provision of affordable services over ubiquitous national infrastructure;
- (g) to create a robust applications environment for end users;
- (h) to facilitate the efficient allocation of resources such as skilled labour, capital knowledge and national assets;
- (i) to promote the development of capabilities and skills within Malaysia's convergence industries; and
- (j) to ensure information security and network reliability and integrity.

Subsidiary legislations passed under CMA 1998 include the following:-

- Communications and Multimedia (Technical Standards) Regulations 2000/P.U.(A) 124
- Communications and Multimedia (Spectrum) Regulations 2000/P.U.(A) 128
- Communications and Multimedia (Licensing) Regulations 2000/P.U.(A) 129
- Broadcasting (Licensing For Television Broadcast Receivers and Dealing In Radio and Television Broadcast Receivers) Revocation) Regulation 2000/P.U.(A) 123

These regulations set out the details relating to various specific provisions of CMA 1998 relating to technical standards, spectrum allocation and management and licensing framework and procedures relating to the same. In addition, CMA 1998 introduced the concept of promotion of competition and the prohibition of monopolistic and anti-competitive behaviour. To facilitate this new paradigm shift in policy, the MCMC has published guidelines on "Dominant Position in a Communications Market" and "Substantial Lessening of Competition in a Communications Market", pursuant to Section 134 and Section 138 of CMA 1998.

CMA 1998 and its subsidiary legislation marks a shift in previous Government policy of protecting monopolies and enshrines the firm commitment of the Government towards liberalisation of the communications, broadcasting and multimedia sectors and putting in place a competition model which will assist in the formulation of policies and introduction of economic activity with the goal of achieving the national policy objectives stated in CMA 1998.

4. INDUSTRY OVERVIEW (Cont'd)

Industry Dynamics

The fixed line telecommunications in Malaysia is presently dominated by the incumbent Telekom Malaysia. In the cellular market, competition is strong among the six (6) operators. Celcom and Maxis are ahead of the other four (4) operators in terms of market share. For the payphone market, in terms of number of payphones, Telekom Malaysia has the largest share with approximately 70% with the remaining 30% for TRSB.

Some degree of product differentiation is evident especially in the cellular sector where there is strong emphasis on brand name and technology employed. Operators compete for customers in terms of price, the type of products they sell and the level of services they provide. The telecommunications industry, in particular the cellular sector, is also characterised by the rapid change in technology. This requires substantial investment by the cellular operators to acquire these technologies and to roll them out to the subscribers. This is principally due to the keen competition amongst the operators to avail to the public the latest available technology in order to capture more market share.

Outlook of The Telecommunications Industry

As Malaysia moves into the information age, demand for efficient telecommunication services cannot be over emphasised, particularly with government's initiatives as reflected in the Multimedia Super Corridor project and the development of competition friendly legal environment.

To meet sophisticated demand from businesses and consumers, telecommunication companies must continuously invest in high value added services. As such, investment in modern telecommunication infrastructure will be the key to the success of Malaysia's telecommunications industry. Investment may be in the region of several billion RM mainly involving upgrading of fibre-optic networks and cellular technologies, and purchase of switching equipment and digital transmission equipment. In addition, investment in skilled and professional human resources will also have to be made.

As data traffic grows in importance, the market for the telecommunications service providers shifts from domestic in focus to global. With penetration rate still relatively low compared to the more developed countries in the Asia Pacific region, there is a vast potential for growth in the Malaysian telecommunications industry.

4.2 INTERNET INDUSTRY

The internet and the world wide web are a massive electronic communication pipeline between businesses, consumers, government agencies, schools and other organisations worldwide.

The internet started in Malaysia with a government initiative via the Malaysian Institute of Microelectronics Systems (*now known as MIMOS Berhad*). MIMOS Berhad started the ball rolling by setting up a service called JARING back in the middle of 1993. The Malaysian Government then issued ISP licences. In the last few years, the number of internet users is believed to have grown significantly owing primarily to a conscious effort by the Malaysian Government to encourage Malaysians to increase the use of information technology. With the Government firmly supporting the information technology sector, there is considerable growth potential in this industry. In the internet service market, there are seven (7) operators licensed to offer ISP services and they are Telekom Malaysia, TT dotCom, Celcom, MIMOS Berhad, Maxis, DiGi and Prismanet Sdn. Bhd.. The main ISP players are Telekom Malaysia, MIMOS Berhad, Celcom, DiGi, Maxis and TIME dotNet. However, in future, competition is expected to be keen as demand for data traffic grows and the industry liberalizes.

5. FUTURE PLANS AND PROSPECTS

As the new technology brings about convergence in voice, data and video, demand for bandwidth will grow significantly. With its own fibre-optic trunk network which is upgradeable to IP platform, the TIME dotCom Group is in a strategic position to fully exploit this potential. The TIME dotCom Group believes it will eventually emerge as the principal fibre optic carrier of high speed data and wholesaler of bandwidth in Malaysia as well as an alternative to Telekom Malaysia in all aspects of telecommunications.

TT dotCom

With the growing usage of the internet and the rapid development in the equipment and transmission technology, more sophisticated services can be bundled and provided under an integrated box and equipment. The trend of future services is progressing towards total communications services that rely heavily on the broadband infrastructure. Large corporations with multiple branches are demanding broadband services to create a private broadband network and integrate intra communication services like voice, data, local area networks and their information servers. TT dotCom's ready 100% fibre optic network is in a strategic position to capture and exploit the growing need for broadband services.

One of the key advantages for TT dotCom is the large capacity of its fibre optic network which is upgradeable to IP platform. Fibre optic is a cost efficient medium to deliver voice and data transmissions. With its fibre optic network in place, TT dotCom is ready to increase the utilisation of its network by :-

- (i) bundling bandwidth with services from TWSB, TRSB and TIME dotNet to offer competitive solution based packages to its existing corporate customers as well as to acquire new corporate customers; and
- (ii) With the emergence of 3G wireless systems which requires high bandwidth to support broadband wireless data transmission, TT dotCom will be able to lease its bandwidth to other mobile phone operators as well. TT dotCom is also ready to offer wholesale broadband leasing to the ISPs and other telecommunications operators. For ISPs which rely on a private data network to connect their nodes, wholesale bandwidth would provide them an excellent opportunity to either expand or upgrade their backbone capacity.

To further enhance the broadband utilization, TT dotCom will form strategic partnerships with global operators who are already providing international broadband services to its clients worldwide.

TT dotCom's strategy in acquiring customers in the past had been focussed in the high revenue commercial buildings sector. TT dotCom will continue with this strategy and plans to connect more than 100 new commercial and corporate buildings, including 7 free trade zones which are homes to the multinational companies (MNCs), by end of 2001. With more than 800 buildings already connected to its extensive network, the cost will be marginal for TT dotCom to connect new commercial buildings to its direct connect services. Implementation of Equal Access has also eased acquisition of potential customers without the need to provide a direct fixed line connection.

TT dotCom is also in the position to capture larger customer base of other operators via its Indirect Access services which offer TIME Access 183 and TIME Gold. With its attractive discounts, TT dotCom hopes to capture a significant number of subscribers of the other operators to its network without having to incur substantial cost of connecting to these new subscribers. Collaboration with existing business with a ready customer database is another strategy employed by TT dotCom to capture other operators' subscribers using its Indirect Access services.

5. FUTURE PLANS AND PROSPECTS (Cont'd)

Being the only other integrated telecommunications service provider, and being part of the Renong group of companies, TT dotCom is in an advantageous position when compared to most operators as it is able to bundle and offer innovative and competitive products and services and tap into ready customers of the Renong group of companies. The Renong group of companies comprise thirteen (13) public listed companies and other private companies covering almost all sectors of the Malaysian economy. The Renong group of companies are in engineering, construction and infrastructure, expressways and tolls, telecommunications, information technology, power and media, hotel and property development, oil and gas, transportation, financial services and healthcare services. Smart partnerships with Rangkaian Segar Sdn. Bhd.'s Touch N' Go services is an example of how TT dotCom can tap into the ready customers of the Renong group of companies.

TT dotCom will also be in a position to tap the extensive distribution and sales channels of TWSB and TRSB to market its products and services. The current dealer sales and distribution network of TWSB covers over 90% of the population, whilst TRSB distributes through over 6,000 retail outlets nationwide.

TWSB

The future outlook of the cellular industry is optimistic and promising due to the potential to create more revenue streams for wireless communication. The increasing need for mobility and seamless connectivity anytime, anywhere will drive the growth of the cellular sector. Voice traffic through wireless networks has increased significantly in Europe. A similar pattern is also emerging in the developed markets in Asia, such as Japan, Hong Kong, Singapore, Taiwan and South Korea, where penetration rates are significantly higher compared to Malaysia. Ultimately, voice traffic carried through mobile networks will surpass fixed networks.

Inevitably, wireless data traffic will also follow the same trend. The global wireless data traffic is expected to grow significantly within the next 2 years. A similar trend for wireless data traffic in the developing region of South East Asia is also expected in the next 5 years.

The evolution of technology has now made it possible to incorporate wireless solutions into existing communication means. The proliferation of using handheld communication terminals, smart phones and personal digital assistants in the consumer market will continue to grow as the need to remain contactable and have access to information increases. Wireless services will be a critical building component to providing total customer solutions when computing, communications and internet technology converge. Computing environments will shift from centralized systems to networked systems while information access moves towards a single access channel. This trend will make digital communication ubiquitous.

A platform to deliver information to users is required – high speed wireless data service, to ensure that consumers are contactable and have access to information anytime, anywhere. GPRS technology will bring wireless data access speeds up to 115 Kbps. New 3G technologies and solutions will increase wireless data transfer speeds further to 2 Mbps. This will open a new window to create interactive services and applications that will further drive efficiency, productivity and cost-effectiveness to business processes. The following list summarises the potential services that could be made viable for the business, consumer and mobile user segments:-

- Fast wireless internet and corporate intranet access
- Enhanced and unified messaging services merging voice, fax and e-mail services
- Information and audio broadcast on demand
- On-line banking and shopping
- Real-time and high quality video streaming/conferencing services
- Geographical navigation services
- Mobile office solutions – for task management, voicemail, fax and e-mail.
- Mobile trade facilitation services -- online applications and approvals of services/products

5. FUTURE PLANS AND PROSPECTS (Cont'd)

Additional new business opportunities will also arise when fixed and mobile services converge – Fixed Mobile Convergence ("FMC"). The convergence of this 2 communications channels are not only driven by technological advances and financial reasons. Consumers are also demanding for affordable, coherent and simple services with seamless usage across fixed and wireless networks. As technology grows, wireless networks will offer services comparable to fixed networks, after which these infrastructures will merge. FMC products and services will also be another important vehicle to drive the convergence of the internet and current communication and IT networks to create a truly digital and borderless system.

In the year 2001 and beyond, TWSB will aggressively increase its market share through the implementation of new promotional strategies which will capitalize on offering bundled fixed-wireless-internet services and cross bundling of products/services across the Renong group of companies' businesses which will ultimately add value to TWSB's customers. TWSB will also capitalize on the distribution and sales channels from TIME dotCom's fixed, internet and payphone businesses to broaden its market reach and presence. TWSB will also take advantage of TT dotCom's strong presence in the high value corporate sector and TIME dotNet's internet subscriber base, to cross sell products and services.

TWSB's coverage expansion plans will increase its radio base station from over 700 sites to over 1,000 sites within the next 12 months to complement its marketing strategies. By year 2001, TWSB will increase its network coverage to serve over 90% of the population including all commercial areas, holiday resorts, golf courses, industrial areas and free trade zones.

TWSB also recognizes the importance and the necessity to acquire new wireless technologies to create new innovative products and services to meet consumer demands, gain access to new markets and increase revenues. In anticipation to the growing demands of wireless data services, TWSB has introduced WAP services to allow mobile users access to internet content. On 19 December 2000, TWSB commercially launched GPRS, which support wireless data access speed of up to 115 Kbps.

3G wireless systems promise to offer voice quality and data transfer speeds to match fixed networks but with the value of mobility. 3G networks require high bandwidth to support broadband wireless data transmission. With TT dotCom's nationwide fibre optic network which runs along the NSE together with festooned-submarine fibre cables circumventing Peninsular Malaysia and connecting over 100 cities and towns, TWSB is strongly positioned to implement a 3G network with comparatively low cost and fast deployment time. TWSB has registered its interest with the authorities to obtain a 3G license to enable the Group to introduce new services and applications such as wireless intranet access, mobile office solutions, wireless telemetry, mobile multimedia services, mobile activity management and mobile commerce services.

Ultimately, there will be far more mobile handphones/handheld terminals than desktop computers. This trend will provide an opportunity for TWSB to position itself to penetrate revenues from mobile commerce activities. TWSB will create an environment to aggregate content providers, application developers, solution providers, e-commerce players to establish a wireless portal, which will evolve into a single access portal, for fixed and wireless access, as part of the Group's overall internet strategy. These strategic initiatives and alliances will position the Group to be a key player in the digital economy and capture revenues from e-commerce and m-commerce business.

TRSB

At present, TRSB is aggressively promoting the use of coin phones service by relocating coin payphones from low yield areas to high yield areas. Due to the fast changing technological environment, it is important for TRSB to strategize correctly to maximize investment. In line with this, the company will be formulating a strategic payphone technology migration plan, especially in providing multi-payment phones with multi-application features.

5. FUTURE PLANS AND PROSPECTS (Cont'd)

There are at least three (3) areas of payphone technology that have experienced technology evolution namely on terminal, card and network. For payphone terminal, TRSB will be focussing on the user interface to allow more services to be provided by the phones. The focus will be on providing bigger liquid crystal display ("LCD") with user-friendly environment to view the information such as taxi service, locating fast food outlet, hotel and other public information. Simple advertising through the payphone LCD will generate another source of revenue for TRSB. Other feature includes full web capability terminal to capitalize on internet facilities that enable users to conveniently connect their notebook to send and receive e-mail and faxes. With multi-application features, payphone terminal need to be equipped with smart card reader as a substitute for coins. The systems are cheaper to deploy and maintain, less susceptible to vandalism and also incorporate slots for security access modules to support e-purse function.

Evolving technology in telecommunications network has offered payphone cost-effective solution in keeping abreast of communications evolution. Wireless technology will allow payphones to be deployed at inaccessible areas and be less dependent on the wired-line operator. TRSB has been, in the past, restricted in its business potential by the physical network coverage of Telekom Malaysia. There is a significant opportunity to expand the business of TRSB and reduce cost through migrating its payphones directly onto TT dotCom's network and implementing wireless access to the payphones through the TWSB's network. This opportunity, particularly the wireless option, opens up significant new business potentials with lesser dependency on Telekom Malaysia. TRSB will be in a better position to negotiate fairer revenue sharing interconnect agreement with Telekom Malaysia and hence improve margins.

To manage the payphone operation effectively, TRSB is currently developing the payphone information system. The main objective of the system is to manage the inventory of all payphones by having a detail database information. This inventory can be used to process for example, the billing verifications from the network operators, monitoring daily operations such as installations, terminations and migrations of payphones, tracking the service level and workshop component repair status. With this system, TRSB will be able to automate the workflow and improve the work process.

Another monitoring area that TRSB will focus on is the Payphone Management System ("PMS"), which controls the payphone activities. This system provides information on the serviceability of its payphones. PMS requires lesser manpower in managing the payphones as the status and the activities of payphone operation can be monitored remotely. The system will trigger the alarm to alert the serviceability of payphones and as a tool for controlling the payphone tariff. Other important features include data record where the system is capable of verifying the correctness of revenue against the usage. Once it is completed, TRSB will have a fully integrated payphone operation system that will enable the company to manage the business efficiently. TRSB will also be streamlining its business through contracting out activities such as payphone installation and relocation, maintenance as well as collection activities.

TRSB's marketing strategy will focus on multi-application usage. The usage of payphone cards will not only be restricted to making a phone call but also to pay tolls, light rail transit and bus fares as well as other related service. TRSB will also be promoting brand loyalty programs in order to attract more customers.

The Renong group of companies represents a major business opportunity for TRSB. Given the various types of business activities, within the Renong group of companies, there exist a ready pool of customers which TRSB can tap into, e.g. allowing Touch 'N Go card holders to use their card to make calls at TRSB's payphones. Future payphone technology will eventually accommodate total communication solution comprising of multi-payment and multi-application facilities to cater for integration of other cards accessibility. New generation of payphone system should be able to meet dynamic consumer demand for value-added services, for instance e-purse.

5. FUTURE PLANS AND PROSPECTS (Cont'd)

TIME dotNet

TIME dotNet will focus on providing four (4) types of services namely, connectivity, content, commerce and consultancy. Based on these defined criteria, TIME dotNet has identified the following key opportunities in the Malaysian internet market: -

- | | | |
|--|---|--------------------|
| • Wholesale bandwidth | } | Connectivity |
| • Facilities Management or Server Hosting | | |
| • Business Narrowband/Broadband | | |
| • Residential Narrowband | } | Content & Commerce |
| • Small and Medium Sized Enterprise Portal | | |
| • Consumer Portal | | |
| • IP Security | } | Consultancy |
| • Web Design | | |

TIME dotNet will exploit key areas of internet-facilitated growth in the country:-

- Demand for local and international bandwidth from ISPs and IASPs is expected to result in the emergence of an internet exchange in Malaysia. The wholesale business target at creating a first such exchange in the country.
- Web-enabled businesses in Malaysia will increasingly outsource their facilities management functions. Server hosting will enhance TIME dotNet's value proposition to these business customers. The narrowband business access market is also growing annually. TIME dotNet's proposition to these customers will predominantly focus on better value for money.
- As demand for broadband access within businesses increases, TIME dotNet is well positioned to leverage on its existing network to create a unique proposition to these customers.
- Residential narrowband access represents a mass market that cannot be ignored. Similar to the narrowband business market, TIME dotNet's proposition to these customers will predominantly focus on better value for money.
- Some potential and planned web-portal services for TIME dotNet include financial, online medical, online education, online shopping and e-lifestyle.

TIME dotNet plans to increase the Malaysian virtual communities by providing quality access and support services to the increasingly demanding Malaysian public. This may be achieved through various existing resources that TIME dotNet already has within its association with the TIME Group in the fixed line, mobile, payphone and electronic data interchange businesses.

In addition to this technology synergy, TIME dotNet is also associated with Renong group of companies and their diversified and established "brick and mortar" businesses with their own unique physical markets and associated supply chains. TIME dotNet intends to create or facilitate solutions for these businesses and others, so that they may service their customers more efficiently and cost effectively, who will in turn also become TIME dotNet's subscribers.