ACCESS SYSTEMS PTY LTD

Submission

To

The Productivity Commission Inquiry

Into

Australia's Gambling Industries

October 1998

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1. EXECUTIVE SUMMARY

This submission addresses the issue of new technologies such as the Internet. Access Systems is in a strong position to comment on the implications of new technologies by virtue of both having a developed Internet gaming product and an existing customer base. The Internet on-line cash gaming and wagering market is already large and growing fast internationally, mainly based in non-regulated parts of the world. Australia has taken the lead in licensing Internet gaming, giving Australian regulators and Australian companies the opportunity to set high standards for the world to follow in managing and controlling gambling including its social consequences. This leadership decision also provides Australian companies with opportunities to take the international lead in developing a secure, reliable, auditable, high performance on-line cash based gaming and entertainment systems.

The Internet opens up gambling opportunities to new groups of people and will represent the only means available to some. It changes the way gambling is offered because the Internet differs greatly from all other gambling environments in many ways. By collecting data by player for example on what games are played, when, how many times, for how long and with what results, Internet gambling systems are much more able to closely monitor and control an individual player's activity and habits than in traditional gambling venues. For example the minimum betting age can be effectively controlled, by jurisdiction if required.

Most Internet gaming players are a different group to typical gamblers in traditional forms of gambling. We conclude that much traditional gambling will be unaffected by the availability of Internet gambling and that it is unlikely that problem gambling will increase as a result of its growth. Resources should be set aside to collect and analyse the trends as well as to handle the situations identified.

Properly designed, an Internet gaming platform enables secure financial transactions. An Internet gaming system must implement high security of its own. The system should restrict staff access to the system to what is necessary to run the site. Information held about a player must be held securely, and access to it only granted for legitimate purposes. Players must be protected against potential financial loss as a result of a failure of the Internet gaming system or its communications links. Players need to be assured that the games available at a legitimate Internet gaming site are completely fair.

Australian regulators are taking the lead and breaking new ground in regulating the operation of Internet gaming. Thus the process involved in issuing government certification and in elucidating the features considered essential for an Internet gaming system is being progressed carefully. In future it will be important that regulatory processes are sufficiently flexible to allow gaming sites to introduce changes and new games without undue delays. Regulators, as a matter of good practice, will probably need to re-examine ways of protecting problem gamblers. This is an area in which licenced on-line Internet software provides greater and different opportunities on data collection, analysis and control than in traditional gambling venues.

Individual States are striving to co-ordinate their regulatory and tax requirements, including taxation levels. It is not considered practical to change this situation. Federal and State governments should be encouraged to take a common approach to regulation, preferably through co-operation between states - as in the Draft Regulatory Model. Any change in legislative structure would delay the introduction of regulated Australian gaming sites. Australian governments (at whatever level) would lose revenue and control. Investment put into developing licenced Internet sites would be wasted while the rest of the world catches up and passes Australian regulatory standards and technology.

There are no known practical means by which an Internet player can be prevented from gambling on an international site on products which do not meet Australian standards.

2. INTRODUCTION

Access Systems submits the following information for consideration by the Productivity Commission in response to the inquiry into Australia's Gambling Industries.

Our submission addresses the issue of new technologies "(such as the Internet)" referred to in 3. (f) of the Scope of the Inquiry.

Access is in the forefront of the development and use of Internet gaming software for the regulated gaming and wagering markets internationally. Therefore the comments made in this submission on the technology section of the Terms of Reference are made from practical experience.

Access would also welcome the opportunity to demonstrate Internet gaming to the Commissioners involved in this inquiry and to debate the issues

3. ACCESS SYSTEMS PTY LTD

Access was established in 1991 and operates in Australia and Europe with headquarters in Sydney. The company has developed a world lead in licenced on-line Internet gaming systems. The Access gaming platform, called ACES, provides licenced gaming operators with a secure, reliable, auditable, high performance on-line cash based gaming and entertainment system and includes a broad range of innovative games (on screen table games, slot machines etc). The system includes a strong security model, isolation of sensitive data and a strong encryption process. The group has, to date, invested $7m on product development and employs a highly qualified and a skilled development team of over 35 engineers. The practical experience of the company with live product dates from early 1996.

Access is in a strong position to comment on the implications of new technologies by virtue of both having a developed product and an existing customer base of substantial licenced Internet gaming operators in Australia and internationally. All its customers are government licenced operators and include two clients in Australia and a European national lottery. Access has worked closely with government regulators to ensure the product and the technology adequately fulfill the regulatory requirements. One of Access' existing Australian customers is poised to become the first major licenced gaming organisation to offer worldwide cash based gaming on the Internet. This will result in ACES becoming a "certified" platform.

4. THE MARKET

The Internet is a fast growing borderless means of communication. The number of users is expected to increase from 100 million to 1 billion by the year 2005. The usage is doubling every 100 days. With the rapid development of on-line gaming, it is already possible for customers to gamble on the Internet. Over 150 Internet gaming and wagering sites have been identified worldwide. The majority of these are based in 'tax effective' regimes with little regulatory control. Already there is a leakage of Australian tax revenues from gaming to potentially questionable gaming operators overseas.

Recent studies published on the international turnover include estimates of the 1997 market which range from $450 million to $2b. (source Merrill Lynch and Frost and Sullivan). The industry magazine, International Gaming and Wagering Business (IGWB), has estimated that the Internet gaming market would grow to a turnover of US$25.4 billion by the year 2000 from below US$5bn currently.

5. THE ISSUES IDENTIFIED BY THE COMMISSION

The Commission 'Issues Paper' September 1998 identifies a number of matters which it considers should be understood and debated. The particular matters raised in the technology section of the paper are outlined as follows together with our comments.

0 5.1. To what extent will the new technologies change the way gambling is offered to people? Will it significantly open up gambling opportunities to new groups of people?

People gamble for a variety of reasons. Some of the reasons, such as the social aspects, are different in the Internet environment. For example the entertainment and mood created in casinos will not be present on a PC at home. Internet gaming makes gambling more accessible to new groups of people and will represent the only means available to some - especially those living in remote locations or housebound provided they have on line facilities. It changes the way gambling is offered because the Internet differs greatly from all other gambling environments in many ways. For example:

5.1.1 Separation of the player's terminal from the gaming organisation.

Two of the many implications of this are:

- After downloading the software to play, a competent programmer may try to tamper with it to gain advantage. Slot machines in a club are trusted to generate their own results whereas a PC in someone's home cannot be so trusted. The player of a machine in a club will not have enough time to defeat its tamper-proofing; a player at home has all the time in the world, and tamper-proofing is impractical. With a well-designed system, the risks accruing from tampering with games software are low, and unlikely to cause major damage to the server site.
- Electronic communication through public networks is sometimes unreliable and it is not possible to tell whether there is intrusion on the line. Systems must be designed with these things in mind, and it is beneficial if critical information is sent via a separate medium (eg. by fax).

These factors and others in the on-line Internet software environment lead to security challenges quite different and more complex than has been faced before. Proper security features are vital. Software technology enables the platform to tackle this because *Internet gambling systems are much more able to closely monitor a player's activity and habits than in traditional gambling activities for example by collecting data by player on what games are played, when, how many times, for how long and with what results*. Thus these systems are able to provide powerful means to monitor and control the amount a

player bets -and may also limit a player's gambling in other ways, such as the length of time they wish the system to permit them to gamble (say, 10 hours per week).

Internet gaming systems can thus provide protection against the factors described above.

5.1.2. The current demographics of Internet users are very different

Internet gaming players are a different group to those of typical gamblers in traditional forms of gambling. Access understands that most problem gambling occurs with poker machines played bythe less well off in society. If this is the case, we consider that these are the *least likely* to have access to home computing and the Internet. This indicates a relatively low level of transfer of gambling from traditional venues to the Internet - from which one may conclude that Internet gaming is likely to be in addition to existing gambling, rather than replacing it in part.

We conclude that much traditional gambling will be unaffected by the availability of Internet gaming and that it is unlikely that problem gambling will increase as a result of its growth.

No one really knows what effect Internet gambling will have. A properly designed licenced system gathers huge quantities of raw data automatically, as a standard part of an Internet gaming system, so it will be a relatively minor step to develop software to analyse this data and search for patterns of behavior within prudent limits on privacy. Planning should be put in place early to select and analyse data gathered on real Internet gambling activity. Access would be interested in assisting in this area, with the prospect of using these patterns to identify possible problem gamblers in live systems.

0 5.2 How could access be restricted to adults?

The age of each player can be checked as part of the registration process, and only players verified as adults allowed to bet for cash or receive winnings. The minimum betting age can be specified per jurisdiction - so if a jurisdiction demands players be over 21 before they can bet, it can be enforced.

Each player's residential address can be checked during registration. This address can be compared against addresses for credit card accounts and that supplied for posting winnings cheques. Addresses can also be compared against independent sources such as the electoral roll. The system can be configured to only allow players from nominated locations (country and/or state) to bet and to exclude players from barred locations.

A gaming operator may themself exclude a particular player. They may do this at the player's request, at the government's request (as stipulated in the Draft Regulatory Model and subsequent regulatory regimes - such as in Queensland), or done by the operator for some other reason.

1 5.3. Security of financial transactions, the integrity of the supplier and of the game.

5.3.1 Payment System

Properly designed, Internet gaming software enables secure financial transactions. The primary method is the use of an electronic purse which has to be funded prior to the player

being able to play, and into which winnings are paid. Funding of this purse can be by transfer from credit card, Secure Electronic Transactions (SET), Bill Payee (B-Pay), electronic cash (Digicash), Pre-Paid Cards, cheques and direct credit.

5.3.2 Security

Security features, of diverse types, are by far the most important parts of an Internet gaming system - because without them no site can run without unacceptable risk. Security measures can be classed according to the type of protection they afford to players. Among the most important are the following:

- **Protection from 'hackers'**. The Internet is an open, global network which provides little protection for communications between users and Web sites, and little protection to sites themselves. An Internet gaming system must implement high security of its own, to protect communications with players and to defend the site, especially player data, against 'hackers' (using firewalls, encryption of data in the database, access control, and numerous other steps).
- **Protection from gaming organisation staff**. The system should restrict staff access to the system to what is necessary to run the site. Dual authorisation is important for sensitive tasks. Some tasks may be performed by both Government and gaming organisation staff, and need to be authorised accordingly.
- **Player privacy**. Information held about a player must be held securely, and access to it only granted for legitimate purposes. Only operators involved in customer support will generally be able to view the information about a particular player on request.
- **Protection from disaster at site**. Players must be protected against potential financial loss as a result of a failure of the Internet gaming system. Relevant steps include duplication of site hardware (especially of the database), storing of data off-site in real time, and adequate procedures to minimise the chance of such a failure. (Access has first hand experience of a system failure leading to loss of game data and player balances at a Caribbean Internet gaming site.)
- **Player Fairness**. Players need to be assured that the games available at a legitimate Internet gaming site are completely fair. There are a number of aspects to this: that the odds of winning are as they should be, that the odds are displayed, the rules and behaviour of the games are clear, that all other players are treated in the same manner, and so on. This is achieved in several ways, including providing adequate information to the player when playing, and providing government regulators with the ability to verify game behaviour and the statistical distribution of game results.

0 5.4. Current regulatory responses

Australian regulators are taking the lead and breaking new ground in regulating the operation of Internet gaming. Since the draft regulatory model was published in May 1997, the states and territories have done extensive work on the practical aspects of specific legislation, regulation and technical requirements. Access has been working on a day to day basis with agencies for over 12 months now. Whilst the process involved in issuing government certification and in elucidating the features considered essential for an Internet gaming system has been lengthy

(and therefore occasionally frustrating), it has been encouraging that high standards have been adopted.

Apart from the government regulatory bodies, experienced testing houses such as BMM (Bellamy, Miller and Moneypenny) and GGS (Global Gaming Systems) have been involved, along with audit and security experts such as Ernst & Young and Deloittes.

The draft regulatory model has promoted a new level of openness between the states and territories resulting in the sharing of information and more common standards. Whilst there are some different perspectives between the jurisdictions, these are largely specific to implementation rather than intent. All the jurisdictions and the operators we have dealt with show a very high level of responsibility on both the social and technical aspects of Internet gaming.

The Internet is a fast-moving environment, where users expect new developments to occur very rapidly and where new technology becomes available at a dizzying pace. It will be important, then, that regulatory regimes are sufficiently flexible to allow gaming sites to introduce changes and new games without undue delays. This probably requires changes to existing processes for approving new games (say, slot machines).

To date, the responsibility regulators have taken most seriously is player fairness. This is a developing area due to the many aspects of Internet gaming which existing principles do not cover – for example multi-player games.

Regulators, as a matter of good practice, will probably need to place more emphasis on aspects other than player fairness - especially protecting problem gamblers. This is an area in which licenced on-line Internet software provides greater and different opportunities to take steps to identify and limit problem gambling. As has been mentioned elsewhere in this document, Internet gaming systems facilitate player protection steps (including self-protection) which are not possible in other gambling environments. Some further detail is given under item 6 of this submission. However it is important to avoid setting technical goals which are impossible to achieve and to realise that, as with physical gaming and wagering venues, watertight, infallible security is impossible. Access is putting further thought into these issues.

An example is the potential for regulation to require site operators to provide adequate self control and assistance to control the amount and the time use in gaming. Operators would be able to provide to players messages about how long they have been playing and possibly to give hints that it is perhaps time to stop.

1 5.5. How does interactive gambling differ from other home based gambling such as phone betting?

The key difference is indicated by the name used for this new form of gambling: it is interactive. Phone betting offers a purely functional mechanism for the placing of bets, and has no entertainment value of its own. Interactive gambling offers its own entertainment.

Virtually all other types of commercial betting available from the home have their outcomes determined by events which occur at a pre-determined time (eg. the running of a horse race, or

a lotto draw). Interactive gambling offers real-time games, with results generated for each player on request. This provides a much faster bet-play cycle As in all gaming, the player has to make a conscious decision to stop.

A further aspect of the interactiveness of this form of gambling is the degree to which it is similar to other computer-based games - which are very popular among teenagers and younger children. That is, the step from these games to gambling is considerably narrowed, so measures to prevent under-age Internet gambling must be much stronger. Gaming organisations (and system developers such as Access) are developing more exciting games - which is likely to reduce this distinction still further. Clear guidelines need to be developed setting an acceptable standard.

2 5.6. How will tax be levied on the industry?

The extensive data gathering, reporting and operator control features of the ACES on-line gambling software provide excellent capability to account for taxation purposes.

3 5.7. Should the States and Territories adopt the same legislation and tax regime?

Australia is at the forefront of regulated Internet gaming at the moment. It is to the nation's advantage that high international standards are set for the world to follow and tax revenues from the gaming industry are sustained as the world moves to Internet gaming and wagering.

All gaming taxation and regulation in Australia is currently firmly the responsibilities of the states and territories. Some states are more advanced than others with the introduction of legislation and regulation for Internet gaming. The states appear to be co-operating successfully via the Draft Regulatory Model process, and it seems likely that the key aspects of legislation, regulation and taxation will be handled consistently across the country. Any change in legislative structure would delay the introduction of Australian licenced Internet gaming, to the advantage of operators overseas. That is, it may delay the introduction of regulated Australian gaming sites for an extended period. In the interim, development work and investment put into developing licenced Internet sites would be wasted while the rest of the world catches up and passes Australian regulatory standards and technology, and Australians will gamble at overseas sites. Australian governments (at whatever level) will consequently lose revenue and control.

Current physical gaming operators may be concerned about additional competition from Internet gaming. It must be recognised that Internet gambling is already available and in use from over 150 sites. Attempts to stop the tide will only lead to Australia losing tax revenue and being left behind technically. Any recommendation that has this effect would have to be based on detailed and factual evidence and powerful logic including an explanation of how Internet gambling on international sites is to be prevented.

Federal and State governments are being encouraged to take a common approach to regulation, through co-operation between states - as in the Draft Regulatory Model.

4 **5.8. Can regulations stop non-Australian jurisdictions offering gambling products which do not meet Australian standards?**

The simple answer is 'NO'. The open nature of the Internet makes it impractical to prevent users from accessing whatever Internet sites they wish, so if Internet gambling sites exist somewhere in the world, then players will be able to bet at them. The steps needed to prevent them are such that no government is likely to give serious consideration to the legislation required or the means needed to enforce it. In any case, the possible preventative steps are unlikely to be particularly effective.

6. PLAYER PROTECTION, SELF PROTECTION AND PLAYER CONTROL

The Terms of Reference indicate a concern over the broader questions of player protection and self protection and player control. This section discusses the ways in which players can be protected from the potential risks and potential dangers associated with Internet gaming. It concentrates on the technical and control steps which can be taken.

Much has been said about the potential problems that Internet gaming may cause, and most of this document enumerates ways of dealing with such problems. On the other hand **many of the problems already prevalent in traditional forms of gambling are far more easily controlled with the new Internet medium.** For example, all of a player's bets are recorded, making it much easier to set and enforce limits on how much money a player can lose - something which is very difficult in existing betting venues where players can bet anonymously.

The factors involved in player protection can be grouped into three broad types as follows:

- **Internet Gaming System**: the main hardware and software system which runs an Internet gaming site, and which is responsible for all of the automated player protection measures.
- **Operator Control System**: the supporting regimes, systems, procedures, codes of conducts and so on that a gaming organisation needs in order to operate a regulated Internet gaming site. This includes physical security (cameras, restricted access, etc.), the vetting of prospective employees, accounting systems, payment systems, operational procedures and so on.
- **Probity**: reassuring the player that he or she is dealing with reputable, trustworthy, reliable gaming operators and suppliers, which is achieved by the authorised government body granting them an official licence to conduct the business.

0 6.1. Internet Gaming System Features

6.1.1 Self Control and Self Help

A player must identify themself (log in) whenever they visit an Internet gaming site. This makes it possible to control the activity of the player in several ways, the most powerful of which is to stop the player exceeding certain betting and play criteria they have previously set for themself (ie. bet limits).

6.1.2. Bet limits.

These allow a player to control the amount they can bet. A well-designed system will support several types of limits: loss limit for a time period (eg. $50 per week), purse top-up limits (to restrict the amount of money a player can transfer into their account - eg.

$100 per week), and individual bet limits (eg. maximum bet $5 - to stop a player losing everything in their account in one bet). A player can reduce any limit at any time, but can only increase a limit by applying to the gaming operator (who can then institute checks to verify the player is not a problem gambler). Bet limits are effective on the Internet, but not practical in most traditional forms of gambling.

6.1.3. Self-exclusion.
A player can bar themself from the Internet gaming site at any time. They will then no longer be able to bet at the site. The steps a player must take to remove such a self-exclusion are a policy matter for the gaming organisation - but may include whatever checks an operator feels are necessary to verify that the player is not a problem gambler. This is another control which is more effective on the Internet than in the physical world: a player may request to be barred from a casino, but this cannot be said to be reliable and nor does it work for all types of gambling.

6.1.4. Player history.
Systems must keepa history of all the games played and financial transactions made by each player. These records are kept at a detailed level and are available on demand to the player. This gives each player a much more accurate and complete picture of their gambling than is available from other forms of gambling. Players who may have a problem may thus identify it earlier.

6.1.5. Identify gambling sites.
There are a number of Internet services (eg. “Net Nanny”) which allow Web sites to identify what sort of site they are and what activities they offer. Parents can then use this special software to deny their children access to all sites in particular categories. All gambling sites should register themselves as such with these services.

6.1.6. Problem gambler sites.
Direct links to Web sites for problem gamblers can (and should) be prominently displayed in gaming sites. Players can thus get help more conveniently and more immediately than with other forms of gambling. The Web can provide considerable anonymity when using such sites, which may mean gamblers are less reluctant to use them than contacting a problem gambling organisation by phone or in person.

6.1.7. Email support.
The gaming organisation can provide prompt e-mail support, and any player with a problem should be encouraged to ask them for help if they need it. Operators should be alert to players with potential problems.

1 6.2. Operator and Government Control

In addition to providing players with the ability to put controls on their own betting, the gaming system must allow operators (and, indirectly, governments) to restrict the activities of players and would-be players in accordance with the law and regulations.

The Internet Gaming System automatically handles nearly all player interactions, but the running of an Internet gaming site involves a wide variety of other activities. A gaming organisation must have a well-trained, professional staff, comprehensive operational procedures, suitable physical premises, and various other supporting systems (to perform accounting, financial reconciliation and similar administrative tasks). Most of these activities are involved in the offering of other types of gambling (especially products with significant dependence on technology - such as networks of slot machines), but the importance of such control systems is perhaps less visible in Internet gaming, since the main Internet Gaming System appears to take care of everything.

The key features a system requires are:

- **Strict registration processes**. Most of the other controls discussed in this document depend on being able to reliably identify each player, via a login process. This, however, relies on making sure the information each player gives about themself is accurate, which demands strong registration processes. ACES supports a multi-level registration process which, for example, allows a player with on-line registration to bet for small amounts of money; that only a player who has independently verified their age can receive any winnings (and then only by cheque) but that a 100-point check is required for large bet amounts or any transactions that would attract Austrac (money laundering prevention agency) attention.
- **Auditability.** Aside from being able to run smoothly day by day, an Internet gaming system must record sufficient information to be able to satisfy requests in the future to recall it. Purposes for which this is necessary include:
  - **Report money laundering activity**. Aside from all other reasons, a record must be kept of all of each player's financial transactions to facilitate reporting to AUSTRAC of any activity which may be associated with money laundering.
  - **Dispute resolution**. Sufficient information must be recorded about everything a player does in order to deal effectively with any dispute or query the player may have. An operator also needs a range of inquiries to permit this information to be viewed.

0 6.3. Probity

Government regulators conduct detailed probity checks on all individuals and organisations involved in supplying all forms of gambling. These checks are every bit as important with respect to Internet gaming - one could argue they are more important, since players are dealing with a remote organisation, and not meeting its staff face to face. Probity checks are an important part of giving players trust that they are betting with a reputable organisation, and an essential factor in distinguishing regulated sites from those in unregulated jurisdictions.